DOCUMENT RESUME

ED 156 273 JC 780 369

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TITLE Education <--?--> Employment. Comprehensive Follow-Up Study of Two-Year College Graduates in New York State. Phase II.
INSTITUTION State Univ. of New York, Buffalo. Dept. of Higher Education.
SPONS AGENCY New York State Education Dept., Albany. Bureau of Two-Year Coll. Programs.
PUB DATE Dec 76
NOTE 101p.

EDRS PRICE MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS College Majors; Community Colleges; Employer Attitudes; Employment Patterns; *Employment Potential; Employment Services; Graduate Surveys; Job Placement; Job Satisfaction; *Junior Colleges; Occupational Surveys; *Participant Satisfaction; Relevance (Education); *Vocational Education; *Vocational Followup
IDENTIFIERS New York State

ABSTRACT

The effectiveness of vocational education at New York State's public two-year colleges was investigated during spring 1976. Part one of the project was a follow-up study of 1970-71 and 1973-74 graduates to ascertain their success in job or transfer placement within fields for which they were trained, salary and job mobility patterns, and opinions on their college educational preparation and job satisfaction. Part two acquired information on employers' satisfaction with graduates' training, work performance, and relationship with campus placement offices. The study indicated graduates were generally satisfied with their college major choices, seemingly influenced by the image of a career in that field. Graduates felt that courses in their major were rigid and difficult although also stimulating and challenging. Future employment success and advancement seemed hinged on a need for further education; those continuing their education did so mostly on a part-time basis, in programs related to their college majors. Graduate location data indicated the existence of a local job market at least for the first job after graduation. College placement offices were felt to be more helpful in supplying job listings and forwarding credentials than in job counseling. Employers were generally satisfied with graduates' college preparation but believed the liaison between colleges and employers could be improved. (Author/TR)

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Education ←—?—→ Employment

COMPREHENSIVE FOLLOW-UP STUDY OF TWO-YEAR COLLEGE GRADUATES IN NEW YORK STATE

PHASE II

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DEPARTMENT OF HIGHER EDUCATION
STATE UNIVERSITY OF NEW YORK AT BUFFALO
DECEMBER, 1976

JC 780 369

S P O N S O R

The University of the State of New York

The State Education Department

Bureau of Two-Year College Programs

Project 76-2-499

Vocational Education Amendments of 1968

Section 122 (A) (PL 90-576)

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I.

PROJECT SUMMARY

The 1974 Board of Regents Progress Report on the 1972 Statewide Master plan made two important recommendations regarding vocational education at New York State's public two-year colleges. First, the Regents asked for an assessment of placement and counseling services for graduates of career-oriented programs. Second, the Regents asked whether students who graduate from career-oriented programs find employment in fields for which they are trained; and whether opportunities for further education are available to graduates of two-year programs.

Phase I of this project which was conducted in Fall 1974 and Spring 1975, sought to provide information regarding the first request. The report entitled, "Placement Activities in New York State Public Two-Year Colleges" assessed the present status of the placement and counseling services on these campuses.

Phase II of this project which sought to answer the second request of the Board of Regents was conducted in two parts during the Spring of 1976. The first part consisted of a follow-up study to query the 1970-71 and 1973-74 graduates of N.Y.S. public two-year colleges to ascertain the success of these individuals in job or transfer placement in fields for which they were trained, along with salary and job mobility patterns, and opinions on their college educational preparation and job satisfactions. The second part sought to acquire information on employer satisfaction with the graduate's

training, work performance, and relationships with campus placement offices. The purpose of this information will be to assist the two-year colleges in their evaluations for the improvement of their academic programs and student services.

The principal conclusions to be drawn from the data presented in Phase II of this project are:

1. Two-year college graduates are generally satisfied with their choice of major which seems to be influenced by the image of a career in that field.

2. In retrospect, graduates indicated that though they felt that courses in their major were rigid and difficult, they indicated that these courses were also stimulating and challenging. Similarly, electives were viewed as moderately difficult and challenging though they were less rigid.

3. Future employment success and advancement seemed to be hinged on a need for further education.

4. Those who continued their education did so mostly on a part-time basis and in a program related to their previous major.

5. Data on graduate location indicate the existence of a local job market at least for the first job after graduation. Advancement seems to be dependent on the employees mobility.

6. The respondents indicated that the most effective means of finding employment was through making a direct application.

7. Few graduates indicated that the two-year college placement offices were helpful in job counseling though they were helpful in supplying listings of jobs and forwarding credentials.

8. Employers are generally satisfied with the college preparation received by their employees with associate degrees but indicated that liaison between prospective employers and the colleges could be improved.

As a result of these findings, the following recommendations are made:

1. Improvement of relations with prospective employers of two-year college graduates should be attempted through better use of program advisory committees and further development of internship training programs.

2. Due to the limited awareness by students of the services provided by college placement offices, this study suggests the following for making these offices more visible by:

    a) expansion of placement orientation programs
    b) providing more career days for future graduates
    c) conducting workshops on resume preparation and interviewing techniques.

The need exists for further clarification of the findings of this study in order to develop more sensitive interpretations. Accordingly, we would recommend that secondary analyses be carried out on the already gathered data of VEA Project 76-2-499 to clarify interpretations of them, and to answer additional substantive questions. These analyses should involve univariate and multivariate statistical procedures to compare results for different sub-groups of the sample and to test relationships among the different dimensions of the data. From these analyses, more sensitive and detailed recommendations for improvement will be made. Some analyses which could be done include:

a) Differences across racial and ethnic groups regarding the contribution of occupational programs to job success and/or continued education.

b) Differences between men and women regarding impact of occupational programs.

c) Relationship of counseling and placement practices to job success for different program types.

Other analyses would be made to answer questions which arise as the data are evaluated more and more thoroughly.

II.

INTRODUCTION

Two recommendations regarding vocational education at New York State's public two-year colleges (which appeared in the 1974 Board of Regents Progress Report on the 1972 Statewide Plan) led to the initiation of the statewide survey reported here. First, the Regents had asked for an assessment of placement and counseling services of graduates of career-oriented programs and a report on this assessment with suggested recommendations for the Regents' 1976 Statewide Plan. They especially emphasized the need for the State and City Universities to provide usable information on job and transfer placement services for graduates of the two-year colleges. Such information is basic to effective planning for any program in a two-year institution seeking to prepare the graduate for a specific career and/or acceptance to a four-year institution. The goal of that recommendation was to revise and upgrade the campus' structure for guidance, counseling, and advisement services in order to effect a vocationally more useful collegiate experience for students.

Secondly, the Regents had asked whether students who complete what are commonly categorized as career programs generally find employment in the fields for which they have been trained; and whether opportunities for further education are available to graduates of two-year programs. In New York State, the two-year public colleges have the primary responsibility to provide education for persons who have completed or left high school, persons who need training or retraining and persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in regular post-secondary

occupational education programs. In order to improve programs and supportive services for those people in need of occupational training, follow-up studies are necessary to acquire the hard data to aid in making subsequent evaluations.

The State and City Universities were encouraged to conduct follow-up studies of graduates of these pgorams to answer these questions. While there are some data available for the number of two-year graduates who transferred or enrolled in full-time study at the four year units of SUNY, there is a serious lack of empirical data on the employment of the two-year college graduates. The colleges do, on a small scale, conduct immediate follow-ups of their graduates, but little is done to examine employment success two or three years after graduation. Such information is vital for the effective planning of programs and services in colleges seeking to prepare students for immediate employment after graduation.

To begin to provide such information, a survey of placement services and a statewide follow-up study of two-year college graduates of career-oriented programs were conducted, to meet the need for greater accountability of SUNY's career-oriented programs. The first aspect of this project was reported in "Placement Activities in New York State Public Two-Year Colleges" which assessed: a) the status of the p'acement function of these campuses; b) plans and ideas for its development; and c) reports and studies now available on campuses pertaining to placement services.

The second phase of the project, of which this is the final report, was conducted in two parts. The first part consisted of

a Statewide follow-up study of the employment and transfer success of graduates of career-oriented programs at New York State's public two-year colleges. The second part consisted of a survey of a number of employers of these graduates. Letters were sent to the major employers in each SUNY Region asking them to evaluate the preparation of their employees who had been trained wholly or in part at a public two-year college in New York State. Their responses were followed-up by in-depth telephone interviews where possible.

III.

METHODOLOGY

In that the primary aims of the colleges are to serve the students and especially to prepare them for employment, it should be reasonable to ask previous students whether or not the colleges did accommodate their needs. Also, since one of the primary aims of the two-year colleges is to provide quick skill training for the community, it would also seem to be reasonable to ask employers their opinions as to how well graduates of career-oriented programs were prepared for their current employment.

These concerns generate the two separate parts of this study. The first part involved the distribution of a questionnaire designed to elicit the attitudes and opinions of 1970-71 and 1973-74 graduates of New York's public two-year colleges about their college experiences. Following the initial sampling of colleges and programs and the development of a follow-up questionnaire during February and March, 1976, the study was launched in April, 1976, by a questionnaire which was delivered to approximately 4400 graduates of over 200 career-oriented programs who had received their degrees during the academic year 1970-71 or 1973-74. The questionnaire asked the graduates to report their employment and/or transfer success and to evaluate their collegiate experience in terms of how helpful it was in helping them find a job or in continuing their education. This is the most comprehensive part of the study and provides the bulk of the analysis and conclusions.

The second part consisted of a survey of selected employers of

these two-year college graduates. The purpose was to discover their opinions about the education received by the two-year college graduate, the job performance of these graduates, and the employer's experiences with the placement offices. The selection process, design and results are discussed later in the section on Employer Questionnaire.

IV.

STUDENT FOLLOW-UP STUDY

In the initial stages of the project, nine colleges were selected to represent the state community colleges and Agriculture & Technical Colleges. The basis for selection was geographical representation, including at least one college in each State region. (See Map) Erie and Monroe were selected from Region I since they are the two largest community colleges in the region, which is quite large and heavily populated. Mohawk Valley was selected from Region II since it has the largest enrollment in the region. Hudson Valley, being the largest and having the greatest number of programs, was chosen from Region III. Three institutions were chosen from Region IV - the most heavily populated in the State - which includes New York City, Suffolk and Dutchess Counties' Community Colleges. Farmingdale was selected to represent the agricultural and technical colleges, with an additional selection from Canton to represent programs in agriculture and forestry. All graduates surveyed had attended one of these nine colleges.

The major program areas represented in the colleges totalled more than 200 different types classified into major program categories according to a scheme developed by SUNY's Institutional Research Office for reporting convenience.

The eleven major programmatic categories included: Agriculture and Forestry; Applied Arts; Architecture and related; Performing and Fine Arts; Biological Sciences; Business; Engineering and Applied Science and Technology; Health Science Professions and Technology;

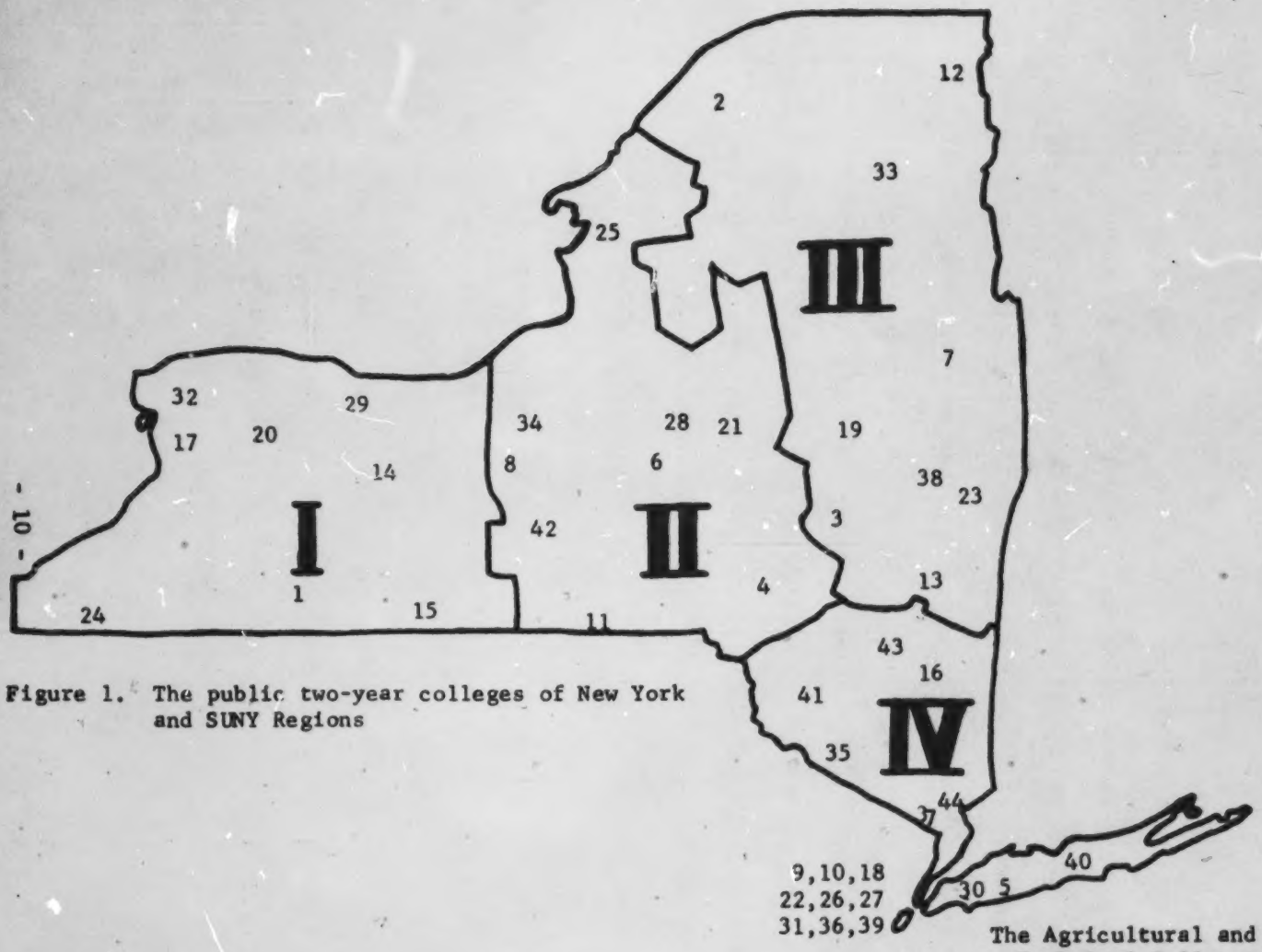

Figure 1. The public two-year colleges of New York and SUNY Regions

The Agricultural and Technical Colleges

1 Alfred
2 Canton
3 Cobleskill
4 Delhi
5 Farmingdale
6 Morrisville

Community Colleges

7 Adirondack
8 Auburn
9 Borough of Manhattan
10 Bronx
11 Broome
12 Clinton
13 Columbia-Greene
14 Community College of the Finger Lakes
15 Corning
16 Dutchess
17 Erie
18 Fashion Institute of Technology
19 Fulton-Montgomery
20 Genesee
21 Herkimer County
22 Hostes
23 Hudson Valley
24 Jamestown
25 Jefferson
26 Kingsborough
27 LaGuardia
28 Mohawk Valley
29 Monroe
30 Nassau
31 New York City
32 Niagara County
33 North Country
34 Onondaga
35 Orange County
36 Queensborough
37 Rockland
38 Schenectady County
39 Staten Island
40 Suffolk County
41 Sullivan County
42 Tompkins-Cortland
43 Ulster County
44 Westchester

Home Economics and Food Science; Liberal Arts and General Studies; and, Public Services and Professions.

After these programmatic categories were selected, sampling was done statewide rather than by school or region. Thus, the proportions of graduates to programs sampled was on the basis of total graduates of a program throughout the state. For example, if Applied Arts graduates were 10% of all graduates of SUNY two-year colleges, then that proportion of the sample would be Applied Arts graduates. If Erie graduated 10% of these, an equivalent proportion of the sample would be Applied Arts graduates from Erie. Similarly, if Mohawk graduated 5%, then 5% of the sample of Applied Arts graduates would be from Mohawk. Thus, the numbers of graduates sampled from each college varied according to program representation. After these criteria were applied, sampling was random within sub-categories.

The total number of students sampled originally was approximately 8500, 50% from 1970-71 and 50% from 1973-74. 1974 graduates were chosen because they would have at least one year in the field, time enough to find a job and become reasonably stabilized, yet close enough to their academic experience to evaluate it clearly. 1975 graduates were not chosen since this was an untypically poor employment year. 1971 graduates were chosen as a comparison year to reflect changes in occupational programs and changes in experiences in finding jobs or needing more education. Address labels for mailing the questionnaire were contributed by each school for its graduates.

A. Development of the Student Questionnaire

Before the initial development of the Student Questionnaire, considerable time was spent reviewing the literature concerning follow-up survey and the problems associated with such instruments. A review was done in the first phase of this project and is included in Appendix I for reference. In addition, the staff made visits to each campus in the sample, described the study, and answered any questions and concerns common to these institutions.

The questionnaire* was designed to elicit responses by graduates to the following topics: choice of program; decision to continue education; problems and success in finding employment and extent of assistance given by college placement offices. The questionnaire was first prepared in draft form and field-tested on persons similar to those who would be the prime respondents. Those persons participating in the pre-test were asked to fill in the questionnaire and to explain which questions were ambiguous or difficult to understand because of either content or form. Poor questions were changed or deleted. In addition, a consultant was asked to examine the questionnaire to find omissions or other faults with the style, form, or content.

Despite these precautions, it was discovered that parts of Question 16 were unclear and of little importance to the analysis. Therefore, some of the questions are not treated comprehensively in the initial analysis of this study. They will, however, provide information, partic-

* See Appendix II for Student Questionnaire.

ularly with reference to the conduct of individual programs in each college. A number of studies can eventually flow from further analysis of these questionnaires, if resources are available.

B. Returns

Among the difficulties encountered in conducting follow-up surveys of graduates through the use of a mailed questionnaire, the foremost is the problem of low response. Being aware that a low rate of response presents an obvious problem as to the reliability of the data, this project was designed to minimize as many of the problems that contribute to a low response rate.

The first concern was that of time. The research literature indicated that most follow-up surveys are conducted within one year of graduation, and, even they have encountered low response rates (see Appendix I). This particular study was concerned with an examination of the employment successes of graduates two to five years after graduation, the years in the sample being the academic years of 1970-71 and 1973-74. Also in Phase I of this project, it was learned that in most cases, the two-year colleges only recently became concerned with long-term success of their graduates and, therefore, the historical records, including addresses, were not always kept up-to-date.

With these concerns in mind, our staff took as many precautions as possible to insure that we would have the most recent addresses of the graduates or of the graduates' parents. The procedure included the following steps:

1. Use the last, or best, address first.

2. Go to permanent record, obtain parents/guardians permanent address, OR address to which they requested their degrees be mailed.

3. Check Alumni Office files for later address.

4. Check females for married name changes.

5. Contact the student personnel dean or director of counseling. They have to trace students for a variety of reasons and may know other techniques than these.

In determining the rate of return, it is acceptable to omit all questionnaires that could not be delivered due to incorrect addresses, death, etc. Time and cost constraints in following up non-returns led to a plan to estimate the number of non-deliverable questionnaires.

Due to the enormous expense of using first class mail for such a large sample, this project arranged to use a third class bulk mailing permit to send out the initial mailing surveys and have them returned by first class mail. A second mailing followed about two weeks later and consisted of a postcard which was also sent by third class bulk mailing permit. Knowing that the postal services will not return questionnaires sent by bulk third class permit without address corrections requested, every tenth postcard was stamped "Address Correction Requested". Each such card is returned with a service charge when the initial address is unsuccessful. A careful tally was kept of all returns inclusive of the following categories:

1. usable questionnaires

2. returned questionnaires - deceased, refused to respond

3. returned postcards with corrected addresses

4. letters claiming non-receipt of questionnaire

5. returned postcards with address unknown

Questionnaires returned in category 2 were automatically subtracted from the original sample. Those returned from categories 3 and 4 were sent additional questionnaires. Category 5 was the most important in determining the non-deliverables as mentioned. Postcards with "Address Correction Requested" were sent to a 10% systematic sample of the original sample (850). In this category, 409 postcards were returned with address unknown. Therefore, it was estimated that the percentage of non-deliverables was 48.12% of the original sample of 8507 or 4093.

Further calculation showed that only 4414 questionnaires were delivered to the graduates in our sample. Of these 2693 usable questionnaires (refer to Table 1) were returned and are the questionnaires upon which all charts and tables in this report are based. The unuseable questionnaires totaled 318 (category 2). The total return is calculated to be 301 and the rate of return is 68.21%. This return rate requires that inferences be somewhat limited, but given the difficulties in contacting those who had graduated a minimum of two years previous to this study, it is a respectable rate of return.

It must also be noted from the procedures used in acquiring addresses that the study examined the responses of the less mobile graduates. These graduates are those who were more successful in finding employment closer to their homes or to the colleges from which they graduated and, therefore, tended not to have as many address changes.

Table 1. Useable Returns Recorded by College of Graduation.

	RETURN TOTAL	1971	1974
Dutchess	22	2	20
Erie	458	158	300
Farmingdale	498	198	300
Hudson	503	249	254
Mohawk	283	124	159
Monroe	444	252	192
New York	61	22	39
Suffolk	403	186	217
Canton	17	6	11
Blank	4	3	1
TOTAL	2625	1122	1454

In order to aid in reliability of the data presented in this report, an examination was also made of the proportions returned by major category to those of the original sample. The results can be observed in Table 2. The result was to discover that the returns have a very close identity to the original sample.

Table 2. Percentage Comparison of Original Sample with Useable Returns by Major Categories.

	% SAMPLE PER YEAR	TOTAL	% RETURNS 1971	1974
1. Agriculture	2.0	1.9	1.8	1.9
2. Applied Arts	2.0	2.5	2.4	2.6
3. Architecture & Related	.3	.8	.4	1.0
4. Arts - Fine & Performing	.3	.2	.3	.1
5. Biological Sciences	.2	1.2	1.2	1.2
6. Business	21.0	20.1	19.6	20.5
7. Engineering	12.0	15.8	17.9	14.1
8. Health Science	15.0	17.6	18.5	16.9
9. Home Economics	1.0	1.8	1.8	1.8
10. Liberal Arts	33.0	27.8	28.1	27.6
11. Public Service	9.0	10.4	8.1	12.2

V.

STUDENT QUESTIONNAIRE

RESULTS

A. Choice of Major

Choice of major was the first area analyzed. The results show that 85.9% of the graduates are generally satisfied with their choice of major, as shown by the response to Question 8 and supported by the responses to Question 10, which indicates that very few graduates changed their major. Of those who did change their major, most tended to remain in the same general subject area. This could indicate that for two-year degree programs, students already have determined career choice prior to entering the college. This is further exemplified in Question 24A in which over 71.5% of the respondents indicate that it was "somewhat" to "very likely" that they would choose the same career program, if given the choice again. This is a good indication that the community colleges are successful in their attempt to provide sound career planning and career education to those who ultimately complete the program. Whether such career planning "takes" with those who do not complete the program remains for further study.

In spite of limitations placed on students who attend two-year colleges, e.g. college choice, an overwhelming majority - 83.2% - felt that there was a strong likelihood that they would pick the same two-year college if they were to choose again. This, too, is a good indication that the eyes of the graduates of these colleges, the colleges were successful in meeting their needs.

As was previously mentioned, the data indicated an overwhelming degree of satisfaction with the major chosen. Question 11 attempted to determine if there was any relationship between satisfaction with major and the manner in which it was chosen by examining what influenced a choice of major or career program. Results (refer to Table 3), indicate that the most important reason for choosing was, "I simply liked the career", even though there were 13 other options to choose (and that option was included only because of pre-testing). In fact, 85.3% of these students responded that liking the career had a "great deal" to "moderate amount" of influence in major choice.

The second major influencing factor in choosing a major was the "Desire to work in a profession" which 84.3% of the respondents indicated presented "a great deal" to "moderate amount" of influence. "Status of a career in the field" was comparatively not as important a motivation for choosing a career (55.1%). Further examination of the data indicated that most students enter programs that lead to degrees which lead to careers in professional fields, such as, health or business careers, which further supports the notion that the community college is to students and society alike, an agency dedicated to career preparation.

The third major influencing factor was "Desire for a higher paying job". This factor still influences a student and suggests a continuing belief in the idea that college generally leads to higher paying jobs. The least influencing factor in choosing a major was the expected "difficulty of other programs" and "first choice was filled". This implies again that students had rather clear ideas

TABLE 3. Factors Influencing Choice of Major or Concentration.

	TOTAL	Rank	1971	Rank	1974	Rank
1. Status of career in field	55.1	7	53.9	7	56.1	6
2. Desire for higher-paying job	67.2	3	67.3	3	67.1	3
3. First choice was filled	10.7	13	10.4	13	11.0	13
4. Desire to learn a skill or trade	60.8	4	61.3	5	60.4	4
5. Desire to work in a profession	84.3	2	83.8	2	84.7	2
6. Previous experience in field	33.8	9	35.1	9	32.8	9
7. Encouragement by parents	35.5	8	38.4	8	33.2	8
8. Encouragement by friends	21.1	11	22.7	11	19.8	10
9. Encouragement by H.S. teacher/ counselor	21.2	10	23.7	10	19.3	11
10. Encouragement by College teacher/counselor	20.3	12	22.0	12	19.0	12
11. Favorable employment opportunities	59.7	5	62.0	4	58.0	5
12. Difficulty of other programs	8.2	14	9.0	14	7.7	14
13. Transferability to four-year program	55.6	6	57.3	6	54.2	7
14. I simply liked the career	85.3	1	83.9	1	86.4	1

about programs they wanted to be in, especially whether or not they led directly to a job. The results for this question are also interesting because "previous experience" seemed to be one of the less likely reasons for choosing a major. In addition, it was found that parents and friends seem to have only a "moderate amount" of influence in a students choice of major.

Question 12 was concerned with another aspect dealing with major choice - the ways that students reacted to the courses they took at the two-year colleges - both within and outside of major fields. Even though the students found the courses in their major to be rigid (72.5%) and difficult (70.7%), they found that the courses were stimulating or challenging (82.4%) and eventually led to a job (59.9% of the respondents). Electives were described as being much less rigid, though still moderately difficult and challenging. Generally, however, they did not lead to a job. The students who did indicate that electives aided in finding a job may have left the field of their original major, transferred into a different major program when they continued their education, or remained in their original program but were able to put together a unique set of electives that attracted employers. Further analysis is necessary to elucidate these implications.

B. Continuing Education

The next section of the questionnaire was concerned with those students who went on to further education either because that is what they had planned - as supported by Question 11 in which 55.6% of the

QUESTION 12 - CHART

TOTAL	Major 1 & 2	Electives 1 & 2
Rigid	72.5	36.1
Challenging	82.4	52.4
Lead to Job	59.9	17.0
Difficult	70.7	43.3

1971	Major 1 & 2	Electives 1 & 2
Rigid	75.8	36.9
Challenging	83.1	44.3
Lead to Job	63.0	18.0
Difficult	71.4	44.9

1974	Major 1 & 2	Electives 1 & 2
Rigid	70.0	35.6
Challenging	81.8	51.1
Lead to Job	57.3	16.3
Difficult	70.3	42.0

respondents chose a particular program because of its transferability to a four-year program - or because they needed more education in order to get the job they wanted. Questions 13 to 17 deal directly with the former group. Question 13 showed that over 50% did continue in some form of advanced education. Question 14 asked the respondents to indicate the major in which he/she continued his/her education. The classification of these majors into program areas has not yet been completed and a listing of the individual programs is too long to be included here. However, Question 15 indicated that 75.4% of those who answered Question 13 continued in a program related to the one that they had previously studied. 53.3% continued their education at a four-year, public institution; and 29.0% went to a private college or university. Of these who continued their education, about half of them were currently attending classes part-time and in the evening (Question 16). Their plans or hopes for receiving a higher degree include 50.5% who desired a bachelor's degree and 5.7% who are seeking or who will seek a doctorate (Question 17).

C. Employment

This section is divided into two parts. The coding scheme and the design of the survey instrument permitted grouping the respondents to describe the results of their obtaining their first job after graduating from the two-year college and their present job situation. This section also eliminates those who are not presently employed, those who have gotten married and stopped working, and those who aren't working because they're still in school. Future plans for evaluation

of this data would include an examination of these particular groups.

1. First Job After Graduation From Two-Year College. This section describes the attitudes and successes of the graduates in their first job after graduation from a two-year college. It was found that most students entered careers in the categories of: 1) professional, technical and/or managerial, 2) clerical and sales, and 3) service occupations (refer to Appendix IV, Q. 18).

The respondents indicated that their degree was moderately helpful in obtaining the job (54.9%); that courses did help in preparing them for performing their job (56.5%); and that there was a direct relationship between the courses they had taken, their degree, and job satisfaction (49.4%). It was generally found that the degree did little for upward mobility in the job (40.6% said the program did not contribute at all and another 20.1% responded that it helped only slightly.). The lack of upward mobility in the first job situation may reflect the fact that the graduate had been trained to perform a specific, technical task, such as a medical lab technician, and, therefore, would not be promoted without advanced training or education. This may be why over half the respondents continued their education on a part-time basis. Question 21 showed that 43.1% received some kind of formal training at work. The employer survey implied that their training was of the nature that was peculiar to the company itself and that all employees underwent such a program. For the health-related areas, Nurses, etc., are always undergoing an up-dating process. The majority of respondents, however, indicated having had only informal training on the job (41.9%). Apparently, most graduates are expected to begin their

work tasks with little more than a brief orientation. This might indicate further the value of the highly specialized and technical education two-year graduates receive in most career-oriented programs.

In general, the annual salary breakdown indicated that the graduates received between 5 - 10 thousand annually. It was interesting that the salaries for the 1974 graduates in their first job tended to be lower than those graduates from 1971. This particular finding needs further examination in greater detail.

Most graduates tended to find their first job in either the same county (57.0%) or in a neighboring county (22.6%). Analysis of the data by major field indicated that those students who found jobs farther away from the two-year college are the ones who received degrees in the agricultural fields.

2. Finding a First Job. The task of finding a job is always a difficult one. The first phase of this project was concerned with the placement offices and services of the two-year college. This phase sought to discover how graduates found their jobs. Placement offices felt that they generally are successful, and should examine the results of this study closely.

Our respondents indicated that 61.5% found that direct application was the best way to find employment. This was followed by 35.2% who felt that a relative or a friend was the best way to find a job. The worst way was to place a personal ad in a newspaper. In fact, only .8% indicated that it was any help at all.

State and private employment agencies generally were also not helpful in finding employment (see Table 4). What was interesting about the results was that college faculty were more helpful to the students' finding employment than were college administrators. Those that felt that administrators and faculty were helpful may have sought personal references from them or were referred or guided by them to a particular employer.

Only 28.6% of the graduates responding to the questionnaire indicated that they had registered with the placement office. In fact, many of those who didn't do so commented on the questionnaire that they did not even know that their college even had such an office. Those who did register felt that the placement office on their college campus was most helpful in supplying listings of available jobs and in forwarding credentials. The respondents also indicated that the placement office was least helpful in supplying job counselling.

3. Present Job. As in the previous section, there seems to be very little differences between the 1971 graduates and the 1974 graduates. 43.5% responded that the degree aided in upward mobility in the job. 56.2% said that the degree helped them to obtain the job. 58.5% said that the degree aided in performing the job. Further, 53.1% responded that the degree aided in their job satisfaction.

Salaries tended to be higher for the present job holder and especially for the 1971 graduates which would indicate that being in a job longer yields higher salaries not only due to longevity,

TABLE 4. Percentage and Rank Order of Methods Helpful in Finding Employment.

FIRST JOB	A great deal & A moderate amount	Rank
College administrators	11.6	5
State employment agency	5.1	7
Private employment agency	7.1	6
Classified ads	16.3	3
Relative or friend	35.2	2
Faculty	14.7	4
Ad placed in newspaper by me	.8	8
Direct application	61.5	1

but graduates have moved into higher level jobs. As evidenced in Question 19, the degree does aid in the upward mobility in the job and even though it doesn't seem to be financially rewarding upon graduation, two to five years later it does appear to have some influence on success. Concerning the question of distance of the Present Job from the two-year college, there appears to be a slight tendency to move away from the college between first job and present job. Graduates also seemed to receive more formal training at work. 46.4% received some kind of formal training on the job.

4. Finding a Present Job. Direct application or relative or friends still appear to be the best means of finding a new job; and placing a personal ad in a newspaper is the least effective. It was also found that most employment agencies were also less helpful in aiding the graduate in finding his/her present job. College faculty and administrators were also less helpful (See Appendix IV, Q. 23).

VI.

DEVELOPMENT OF EMPLOYER QUESTIONNAIRE

INTRODUCTION

In 1974 a questionnaire was distributed to the presidents of the forty-five public two-year colleges in New York State. This questionnaire, which was divided into three distinct sections, was designed to evaluate the status of the placement function at these institutions. The last section of this questionnaire included a request for "copies of follow-up studies, annual reports, and other documents relating to the placement function."[1]

A total of thirty-two of the colleges (six agricultural and twenty-six community colleges) responded to all or at least a portion of Part III of the survey. Out of these thirty-two institutions, twenty-four indicated that a follow-up study of their graduates of career-oriented programs had been conducted and fourteen colleges had prepared annual placement reports. The majority of these reports indicated the numbers of graduates from particular programs and the companies with which they were presently employed. In addition, all of the placement reports submitted to the Phase I project staff contained a list of businesses and industrial organizations that had conducted on-campus interviews.

One of the major purposes of the present study was to elicit information on employer satisfaction with: 1) the education received

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[1] Placement Activities: Current Status & Prospects in N.Y.S. Public Two-Year Colleges.

by career-oriented programs of two-year college graduates, 2) the work performance of these graduates as compared to non-graduates and/or graduates with general liberal arts associate and bachelor degrees, and 3) information on the employer satisfaction with the campus placement offices.

Employer Selection

A list of major employers of the two-year career-oriented graduates was compiled from the annual placement reports to see which companies names appeared most frequently. This list was then compared to the list of companies which conducted on-campus interviews. If the names in the two lists coincided, that company was selected to be contacted, in the belief that a company which actively recruited two-year graduates would be more amenable to answering the employer's questionnaire than a company that did no recruiting.

This method of selection of employers worked exceptionally well for the employers in SUNY Regions I and IV. However, a different set of criteria was needed for selecting the major employers in Regions II and III. The procedure included, first, an attempt to obtain a list of major employers from the placement directors of institutions located in these two regions. This effort was only partially successful. Second, in order to develop a more comprehensive list, a directory of business and companies in New York State was consulted. From this source, a list of major employers was generated and then added to the list supplied to us by the placement directors.

This method of selection proved to be less desirable than the method used in Regions I and IV since it resulted in a higher percentage of companies that either ignored the questionnaire or indicated that they would not participate in the survey. Despite these limitations, however, the responses received contained information of use to the project.

Procedure

A personal letter was sent to the personnel officer of the thirty-six selected companies divided among the four SUNY Regions. These individuals were asked to respond either in writing or by telephone (or if they preferred, by personal interview) to four questions which were concerned with: 1) the job performance of two-year career program graduates, 2) amount of on-the-job training these graduates needed, 3) ways to better prepare these graduates and 4) means to improve the placement offices of these two-year colleges. (A copy of the letter appears in Appendix III).

Non-respondents were contacted by telephone and were either interviewed on the telephone at that time or they indicated that they: 1) would respond in writing, 2) could not respond because of a heavy workload, or 3) did not at present employ any two-year college graduates (see chart).

Results

It should be noted that even though the letter was initially sent to the personnel director of each company, in some cases, the letter was forwarded to other officials in the company for their response. Of

TABLE 5. Useable Returns by Region for Employer Questionnaire.

	REGION I	REGION II	REGION III	REGION IV	TOTAL
# CONTACTED BY FIRST LETTER	10	8	8	10	36
# WHO RESPONDED *(10 letters; 7 telephone interviews)	6	6	3	3	17
INDICATED THEY WILL RESPOND (not received)	3	1	0	2	6
INDICATED NO TWO-YEAR GRADUATES	1		4	5	10
INDICATED CANNOT RESPOND -- TOO BUSY		1	1	1	3

the seventeen responses that were received, a tally of the ranks or positions of those who responded to our request included the following: nine personnel directors, two personnel office staff, one recruiter, one employee relations person, one manager, one employee development manager, one corporate information department person, and one compensation manager.

The responses to the questionnaire are summarized below by question.

Question 1: How does the job performance of two-year college career graduates compare with that of your other employees?

Of the fifteen respondents who answered the first question, all responded favorably to the two-year graduates when comparing them to other employees. Ten of the companies compared the two-year graduate in terms such as superior, excellent, and very well equipped. Four suggested that the two-year graduate compared favorably with other employees because s/he had a grasp of the basic knowledge needed for the job, and thus, would learn faster on the job. One company wrote: "There is no comparison between the two-year college graduates and other employees. The two-year graduates require less training and have an excellent grasp of the business, which we cannot take the time to teach other employees." Another company which was so satisfied with two-year graduates is now filling positions which were formerly filled by graduates with Bachelors degrees with these Associate degree graduates. This person, when interviewed, said that the A. S. people do a better job than B. S. people and are better trained. As was

stated, most companies (10) used glowing statements such as these when comparing the two-year graduate to other employees.

The remaining five who responded favorably to the first question made several positive statements, but not quite as strong. For instance, three indicated that two-year graduates compared very well with high school graduates. One company stated that two-year graduates compare very well with other employees in basic knowledge skills, however, employees with work experience tend to adjust better and quicker to a job.

Question 2: Do career programs adequately train such employees prior to their employment or must they be given the same on-the-job training as non-graduates?

All the respondents indicated that some kind of on-the-job training takes place at the company for new employees. Eleven of the companies stated that this training was of a highly technical nature and was very specific to the company's own equipment. These eleven did not view this training as a result of shortcomings in the two-year programs, but as training too specific for the colleges to handle. For instance, one employment supervisor wrote, "All new employees must learn and accept the company's standard procedures and must adjust to our equipment and techniques." Another stated, "As is the case with most any industry, I am looking for a student well prepared in the fundamentals of his field of endeavor. G. C. Company fully recognizes and takes the necessary steps to train these students for specific career paths in the telecommunications industry."

Four respondents indicated that people with prior work experience were hired for the same jobs as two-year graduates. When this was the case, all stated that two-year graduates could be trained in a shorter time period. "Career programs seem to train them quite adequately. We do, however, continue to use on-the-job training, usually of a shorter period than non two-year graduates." Three companies stated that two-year graduates received the same training as other new employees.

One company had a slightly different approach to the training aspect. Rather than specifically recruiting two-year graduates, they encourage existing employees to enroll in two-year technical programs, which will enhance their job skills under a tuition payback program. Many employees take advantage of this plan and the company is pleased with the outcome. They report that participants in the tuition refund program are generally more aggressive and are higher achievers. This company stated that they preferred this type of plan rather than hiring graduates, because they like to see a person "mature with the company."

Question 3: How might a two-year college better prepare a graduate to work as one of your employees?

Six institutions indicated that they were very satisfied with the program as is. The most frequent comment on how the institution might better prepare students was on calling for improved cooperation between the colleges and industry (6). These six companies suggested the establishment of some kind of advisory board or coordinating committee to deal with general company needs and new technologies. One employer noted, "Active use of knowledgeable advisory committees from the com-

munity can help to maintain realistic standards of knowledge required in the particular fields of study. An active cooperative educational program can also be very helpful if a meaningful assignment can be arranged." Another stressed that ... "it is vitally necessary that the schools recognize the rapidly changing technology and continually strive to remain up to date, particularly as it applies to electronic technology." One satisfied employer reported, "In the colleges previously mentioned, little improvement is necessary, because they have very active advisory boards, which seek employer participation." This same employer found through his experience that the most successful advisory boards were ones in which the department head, his faculty, and representatives of admissions and placement are generally present.

Three employers commented that some job exposure would be helpful. Suggestions were for either an internship or merely a tour of the plant. "Let them see the 'World of Work' while still in college through a plant tour program and erase the false impression of everything coming up roses." Three employees suggested that new graduates needed to be more responsible. "Stress the importance of constant, daily attendance. Encourage accuracy in students' work, as even minor errors can be exceedingly expensive in industry. Emphasize responsibility as major item in developing a good, mature work attitude. Motivation and attitude can be just as important, if not more important, than knowledge." Another suggested they need "An orientation into the role of business in the modern world." One company further suggested that graduates were lacking seriously in safety training.

Question 4: How could a two-year college better tailor its placement activities to increase its students' chances of finding suitable employment and to better serve your needs?

Six of the companies who responded to this question indicated that the colleges were doing an excellent job with placement activities as far as they were concerned and had no specific suggestions.

Nine respondents had specific suggestions for the various placement offices. Six comments were suggestions for the placement office to better orient students in the areas of resume preparation and interviews. A typical comment was, "I would say the best area of concentration should be in getting the student ready for a job interview. Arrange for him or her to go through mock job interviews, be prepared to fill out an application card and have a resume as well as a complete list of courses with them when they apply at a company for a job."

Three companies asked that the placement offices better inform industry of the colleges and their relevant programs. These companies felt that the colleges should prepare descriptions of program requirements to accompany students' resumes, thus, enabling corporations to better evaluate the full scope of the candidate's training. Two companies asked that placement offices institute continuous placement other than the traditional April, May, and June periods. These employers stated that they could not project nor could they assure that openings would occur during this period of time.

One employee went as far as to suggest that the placement director should be acquainted with the following:

a) Local employers, whose establishments they occasionally should visit.

b) Other employers, who visit the colleges from distant locations and visit their plants at least once.

c) The college programs in detail and talk to department heads in the college periodically about placement.

This same employer felt that the placement director should also include in his duties the following:

1) Arrange for alumni to return to the college and present seminars about their work to the students.

2) Emphasize to the students the importance of being willing to move to the best job opportunities and not restrict themselves geographically.

In summary, it can be generally said that most employers are quite pleased with the educational preparation that the two-year career-oriented program graduates received. It seems as though the graduates were able to acquire not only the basic skills necessary for a job but also s/he developed a particular way of thinking that make him/her easily able to adapt to new and different experiences that would be found on the job. They seem to have a basic grasp of the job and are able to learn faster while on the job.

Even if the colleges try to cover all aspects of the job, most companies still require some on-the-job training. What was learned, though, is that in the majority of the cases this on-the-job training is felt by the employer to generally be of the nature specific to the company itself, i.e. company policy, goals, philosophies, etc.

It was also learned that some companies hire employees without degrees and then send them to school to pick up the basic learning skills which would take up too much of company time to accomplish.

Regarding improvement of two-year programs, it was suggested that advisory committees between the colleges and businesses be helpful. Advisory committees are generally already in existence with degree programs, but it is obvious from the results that not enough use is being made of these committees. Better community college and business relationships could be developed through expansion of these committees in order for all to keep up with the ever-changing technology.

It also seems important to emphasize the need for further development of internship training programs with prospective employers. In today's age, when the traditional college-age population is no longer available in such large numbers as before, this particular mode of education and job training could be utilized to its fullest.

The final consideration concerns the procedures for finding employment. The need was established for a better orientation of students for preparation of resumes and job interviews.

VII.

CONCLUSIONS & RECOMMENDATIONS

The following pages will present short summaries of the results of two parts of this phase of the project and will also present recommendations concerning the placement function and program structure of the two-year colleges and relations with prospective employers of graduates of two-year colleges in New York State.

Review of Student Questionnaire Results

The data showed that most two-year college graduates had pretty well made up their minds as to choice of major and career before entering the college and that 85.9% were generally satisfied with their choice of major. 71.5% of the respondents said that they would make the same career choice if they had a chance to do it over again. Reasons stated by the respondents for choosing a major included 85.3% who responded that "just liking the career" had a "great deal" to "moderate amount" of influence in their choice of major. Other important reasons for choosing a particular major included a desire to be a professional and a concern for higher salaries.

Reactions to the courses they took at the two-year colleges can be summarized as follows: Courses in majors were rigid and difficult. This did not seem discouraging to the students since the respondents also recalled them as being stimulating and challenging and having eventually led to a job. Electives were described as being much less rigid, though still moderately difficult and challenging.

The results also showed that over 50% of the graduates did continue in some form of advanced education. 3/4ths of those who did continue their education did so in a program related to the one that they had previously studied at the two-year college. In fact, the employment successes indicated by the respondents seemed to be hinged on the result of further education. It appears that the degree was only moderately helpful in obtaining the job and that it did little for upward mobility in the job, and this may be why 50% continued their education.

The data show that 79.6% of the graduates were successful in finding employment within the same or a nearby county to the college from which they graduated.

In terms of finding their places of employment, most indicated that direct application was the most successful method; and that the worst method was for the graduate to place an ad in the newspaper. Only 28.6% of the graduates registered with the placement office at their college. Many indicated that they were unaware that the college had such an office. Students who did use this office replied that it was helpful in supplying lists of job offerings and forwarding credentials but was not very helpful in the area of job counseling.

Review of Employer Questionnaire Results

It can be generally said that most employers are quite pleased with the educational preparation that the two-year career-oriented program graduates received. It seems as though the graduates were able to acquire not only the basic skills necessary for a job, but

also s/he developed a particular way of thinking and made him/her easily able to adapt to new and different experiences that would be found on the job. They seem to have a basic grasp of the job and were able to learn faster while on the job.

Even if the colleges try to cover all aspects of the job, most companies still require some on-the-job training. What was learned, though, is that in the majority of the cases this on-the-job training is felt by the employer to generally be of the nature specific to the company itself, i.e. company policy, goals, philosophy, etc.

It was also learned that some companies hire employees without degrees and then send them to school to pick up the basic learning skills which would take up too much of company time to accomplish.

Recommendations

Regarding improvement of two-year programs, it was suggested that advisory committees between the colleges and businesses be helpful. Advisory committees are generally already in existence with degree programs, but it is obvious from the results that not enough use is being made of these committees. Better community college and business relationships should be developed in order for all to keep up with the ever-changing technology.

It also seems important to emphasize the need for further development of internship training programs with prospective employers. In today's age, when the traditional college-age population is no longer available in such large numbers as before, this particular mode of education and job training could be utilized to its fullest.

The final consideration concerns the procedures for finding employment. The need was established for a better orientation of students for preparation of resumes and job interviews.

Phase I* recommended the following (among others) regarding placement:

1. By virtue of their broad and unique missions, the public two-year colleges are obligated to provide a comprehensive career development program to include job and transfer placement, career counseling and follow-up activities.

2. Whenever possible, these activities should be centrally coordinated. This office or center would not only improve communications and services and decrease overlap of placement services, but would enhance the status, the visibility, and the perception of those services necessary to fulfill student, employer and community needs.

3. The placement function should not be seen as exclusively the responsibility of a placement office or of individual departments, but rather as a cooperative effort of the college faculty and staff and members of the community.

4. Career counseling and placement services should be designed with the usual concerns and problems of special groups in mind. Serious consideration should be given to providing special assistance where appropriate to such groups as part-time students, adult students, alumni, women, minority groups, the disadvantaged, the marginal students, the veterans and the handicapped.

Phase II findings regarding the lack of awareness by students of the placement offices suggests the need for making the offices more visible. To that end, Phase II would recommend that the placement offices:

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* Placement Activities: Current Status and Prospects in New York State Public Two-Year Colleges, pages 38 & 39.

1. Expand placement orientation programs.

2. Conduct workshops on preparing resumes and employment applications and interviewing techniques.

3. Plan more career days for future graduates.

4. Improve liaison with prospective employers.

An opportunity exists to further clarify and elaborate those findings by secondary analysis and to develop more sensitive interpretations of the results and better recommendations for improvement.

In addition, such analyses may contribute to implementing those phases of the 1976 Master Plan relating to two-year college occupational programs, and to suggesting further studies aimed at understanding and improving New York State's ability to fill student vocational needs.

Accordingly, we would recommend that secondary analyses be carried out on the already gathered data of VEA Project 76-2-499 to clarify interpretations of them, and to answer additional substantive questions. These analyses should involve univariate and multivariate statistical procedures to compare results for different sub-groups of the sample and to test relationships among the different dimensions of the data. From these analyses, more sensitive and detailed recommendations for improvement will be made. Some analyses which could be done include:

a) Differences across racial and ethnic groups regarding the contribution of occupational programs to job success and/or continued education.

b) Differences between men and women regarding impact of occupational programs.

c) Relationship of counseling and placement practices to job success for different program types.

Other analyses would be made to answer questions which arise as the data are evaluated more and more thoroughly.

APPENDIX I

Review of the Literature *

* Chapter from Phase I report entitled: PLACEMENT ACTIVITIES: CURRENT STATUS AND PROSPECTS IN NEW YORK STATE PUBLIC TWO-YEAR COLLEGES.

REVIEW OF THE LITERATURE

This section will discuss the placement function in two-year career-oriented colleges and its relationship to follow-up studies of graduates based on a review of the current literature. Articles cited are the results of a computer search conducted by the George Washington University Educational Resources Information Center (ERIC). They provide a broad overview of attempts made nationally to improve the quality of education in community and technical colleges.

A. The Special Importance of Placement Services in the Two-Year Career-Oriented College

Placement is generally accepted as a necessary, if not crucial, element in any institution providing career education. Placement in the two-year colleges is even more important than in other institutions. With the dual goals of service to the student and service to the community, placement represents the interface of the purposes of the two-year college (Hedlund, 1972).[1] A workshop of counselors from the six Urban Centers of SUNY concluded that the placement function should be regarded as equal in importance in the instructional function (SUNY/Albany, 1971).

Several models for the placement function have been developed. Larsen and Hunder (1971) stress that transplanting existing program

[1] All articles cited are identified by author and publication date. Complete references are included in the bibliography in the order in which they appear. Multiple citations are not repeated.

models from four-year institutions would not meet the special problems and circumstances of the two-year institution. The institution must first clarify the role of placement in carrying out the objectives of its special programs. Elements of the placement model advocated by Blocker (1966) and Glenn (1968) include on- or off-campus job placement and vocational counseling for students while they attend college, communication with employers to evaluate adequacy of course content in relation to community needs, cooperative contributions of faculty, counseling personnel and employers to curriculum development, continuing placement services to graduates, and follow-up studies to measure graduates' transfer or employment success and to determine reasons for dropout or withdrawal.

Elements of other models for the placement function include the maintenance of an occupational information library and educational programs to prepare students for job interviews (Eastern College Personnel Officers, 1964). Brod and Brod (1974) add that special approaches should be developed for minority students, veterans, the handicapped and other marginal students. Mohs (1962) agrees with Blocker and Glenn and adds that central to the success of any placement service is the selection and allocation of professional staff as well as the degree of support given placement by the college administration.

B. Studies of Placement Services' Components and Problems

The study of the placement function is complicated by the almost complete lack of empirical research on placement services. The Cornell study, Placement Services in New York State Two-Year Colleges (Hedlund,

1972), makes an important contribution to determining the components of a successful placement function and pointing out specific problems which are unique to the two-year institution.

1. The Placement Process in the Two-Year College:

There is ample evidence that the postsecondary occupational student has difficulty making vocational choices (Cross, 1968). Much of this difficulty appears to relate to unreal vocational aspirations (Panos and Astin, 1967). McCowan and Mongerson (1971) found that more than half of the male graduates and almost one-third of the female graduates sampled in a study of 1969 graduates of New York secondary school vocational programs were employed in areas other than those they studied in the occupational education program. A 1964 ACT Research Report found that 55.1% of the students sampled from vocational college programs changed their vocational choice during an 18-month period. Clearly, one important aspect of the placement function must be career counseling which realistically introduces and prepares the student for the world of work.

Several studies have indicated the need for greater efficiency in the performance of the placement function, especially with regard to visibility and communication of services to the student body. In a study of counseling and related functions in New York Public two-year colleges (Hedlund, Bail and Nelson, 1968), it was found that about one-fourth of the students sampled did not believe their colleges provided any career information and over one-third of the students sampled had no knowledge of a placement function at their college. Various follow-up surveys of community college graduates found that students rated the

counseling staff "lowest" of various aspects of their college experience (Gold, 1972); that students regarded "their own initiative" as the most influential factor in finding employment after graduation (Portland Community College, 1972). A 1970 follow-up study of Montgomery Community College students concluded that the college did not provide effective placement services for graduates (Bleil, 1972).

Brod and Brod (1974) and others discuss the need to develop special approaches to the problems of minority students in placement services. The Cornell study found that 20 of the 35 responding colleges of their survey made no special efforts to serve the placement needs of minority students. One exception is a study of minority experiences at three San Diego community-junior colleges (Baldwin, 1970). This is an area which clearly needs more research and evaluation.

Transfer counseling should be another aspect of the placement process. Hills (1965) found that the junior college student who transfers to a four-year institution is likely to suffer a potentially severe transfer shock, that he will encounter greater difficulty than the native student, and that he will be less likely to graduate in the normal time. In an empirical study, Roueche (1967) had similar findings, but he notes that more work is needed in determining the reasons for success or failure of junior college transfers in order to modify existing services at the community college level. The Cornell study found that only half of the placement officers maintained college catalogue files, reflecting the fact that transfer counseling is not a

factor at most of the New York two-year colleges.[2]

In a survey of the literature concerning placement follow-up programs in Texas community colleges, Ellerbrook (1969) found that almost nothing is being done on or for students who drop out of junior college. The Cornell study does not include a discussion of this problem. O'Connor (1965) cites the need for follow-up studies of dropouts to increase the predictability of measurements of potential dropouts to permit more effective counseling programs for attrition prevention. In those follow-up studies on dropouts which have been done such as Langley (1968) and San Jose City College (1968), students who had withdrawn from college before graduation generally felt that placement and counseling services had been ineffective. These students constitute a special group with special problems which can provide insight into the overall effectiveness of placement services.[3]

2. Organization and Staffing of the Placement Function:

The Cornell study is the best, if not the only, descriptive survey of existing placement services at two-year community colleges. It raises several problems which seem to be common to the majority of New York two-year colleges. The chief placement officers cooperating in

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[2] A number of follow-up studies of transfer students have been conducted at various community colleges, which come to similar conclusions. They include Bronx Community College (1969), Lake Land College (Lach, 1971) eleven Maryland community colleges (Reese, 1967), Western Michigan University (Hewitt, 1971), Lorain County Community College (Greive, 1967) and University of California, Berkeley (Lee and Suslow, 1966).

[3] Other dropout follow-up studies include those done at Santa Fe C.C. (Bromley, 1973), Bucks County C.C. (1973), Louisiana Technical University (Terry, 1972), Wilkes C.C. (Roesler, 1971) and Orange Coast J.C.'s (Brightman, 1972).

the study exhibited a gratifying interest in any research on the placement function, probably reflecting a general lack of communication among professional placement personnel. The placement officer appears to be a kind of "marginal" person in the community college, resulting from a lack of clear definition of his professional role. He typically gets into placement without much specialized preparation. He does not have much on-the-job training because there is no one who knows much more about the function than he does when first hired. He usually wears several hats and consequently has difficulty setting priorities for his limited time and resources. He does not feel that he is a part of the career education faculty at his college, and he often feels some competition with counseling personnel. And, he is not high enough in the organizational hierarchy of the college to feel he can make a significant impact on the way things are done (Hedlund, 1972).

The diversity of the different placement services represented at the colleges in the Cornell sample is reflected in the wide variety of job titles of the chief placement officer. At only ten colleges does the placement officer have responsibilities solely in the area of placement. At the remaining 26 colleges, the job title indicates responsibilities in everything from financial aid to student activities. It is obvious that not much can be done to improve placement services without adequate support from the college administration, including adequate staff and budgetary support to carry out the placement function with distinction. Moreover, the chief placement officer should be accorded the necessary organizational status to represent the college to the public, to be listened to with respect among college adminis-

tration, and to interact with career faculty on an equal organizational level (Hudlund, p. 30).

3. Relationship of Placement Function to Curriculum Development and College Structure:

The Cornell study concluded that if the two-year college is to be true to the philosophy of serving the needs of the community as well as the career-oriented student, the curriculum should be sensitive to both the present and projected skillrequirements of the community. Of the respondents, only ten placement officers served on a curriculum committee, and twelve reported that course offerings in occupational areas are not affected at all by input of placement personnel. Cooperation between faculty and placement officers needs to be strengthened. There appeared to be minimal impact on the curriculum by area business and industry, probably because there is no cogent, consistent manner of communicating business needs to curriculum planners. The Cornell study recommends that the placement officer play a key role in the curriculum planning process in career areas by providing meaningful data about regional manpower projections and the experience of recent graduates.

In the overall recommendations of the Cornell study, stress is placed on the need for evaluative, empirical research on placement services and follow-up studies. Much of this research could be conducted by the placement staff itself. However, there is also a need for more extensive research involving serveral colleges of the whole state system.

C. The Need for Follow-up Studies to Determine the Success of Two-Year Career-Oriented Programs

There is a marked shortage of follow-up studies of the junior college graduate regarding his success in finding employment and transfer opportunities. Ellerbrook (1960) sees these follow-up programs as essential for colleges to evaluate their program's total objectives. Krasnegor and Sharp (1966) found the most serious gap in the lack of follow-up information at the post-high school level for those trained in technical institutes or junior colleges. The most significant need for vocational follow-up is a comprehensive evaluation of what happens to an individual who has been trained. Forgey (1971), Matteson (1966) and Glenn (1968) all stress the importance of follow-up studies which should include job placement of graduates and feedback from employers to evaluate adequacy of course content and to assess the college program in relation to community needs.

1. Models for follow-up studies:

There are several articles which outline model follow-up studies. In an empirical study of forty-two public junior colleges, Deem (1969) states that the purpose for follow-up is to evaluate and improve the institution's performance of stated objectives, including curriculum, course content, counseling and guidance services and instruction. Goff (1968) conducted a survey of follow-up methods in vocational programs with an eye toward developing a standard procedure involving a minimum of time and money. O'Connor (1965) has put together a model of follow-up procedures for junior colleges, including sample question-

naires, and Krasnegor and Sharp (1966) analyze current study techniques applicable to vocational education. Little (1970) presents a review of published follow-up studies since 1965.

Employer feedback is generally regarded as one of the most important aspects of follow-up studies in estimating how well an institution prepares its career-oriented graduates (O'Connor, 1965). Moraine Valley Community College (Willett and Piland, 1973) developed a questionnaire and interview schedule for all employers hiring graduates between 1969-71. The study showed a positive correlation between college experience and job performance evaluation. Suffolk County Community College (1968) used employers' replies to help determine the best level of specialization in courses, the right balance between skill and theory, and the correct proportion of general and technical education. Studies conducted at Harrisburg Community College (Snyder, 1972) and Portland Community College (1972) found that employers felt the specialized training students had received at college influenced their decision to hire them and better prepare them for employment. In general, the response rate from employer questionnaires in follow-up studies is significantly higher than that of the graduates.

A second aspect of vocational follow-up studies is the necessity for relating local and national manpower needs and employment opportunities to existing vocational programs. The Department of Vocational Education at the Pennsylvania State University has developed a supply-demand model (Senier and Enderlein, 1973) as a method of evaluating the needs of the labor market in relation to curriculum planning for voca-

tional programs. This study includes an extensive bibliography of related literature on post-secondary supply/demand. Developing such a model is made difficult by the limited information available on industry needs; consequently, a number of efforts have been made by educational planners to conduct surveys of their local areas. Hawaii Community College (1972) and Matteson (1966) both point to the need to remain alert to area job market needs in order to evaluate present programs. The Engineering Manpower Commission (1973) made an analysis of the annual engineering and technology graduating class as a means of identifying trends in the placement and occupation of these graduates. Oklahoma is one of the few states that operate a statewide system providing information for matching manpower supply and demand (Tuttle, 1971). In general, those articles concerned with this question agree that vocational education must be responsive to the needs of the nation's labor force in order to conduct effective vocational programs.

Finally, follow-up studies should take into account the experiences of the graduates and other former students regarding their success at finding employment or transfer opportunities. Data should include student evaluation of course content, effectiveness of counseling services and instruction, and appropriateness of grading standards (O'Connor, 1965). Within New York State, follow-up studies have been conducted at Bronx Community College (1970), Suffolk County Community College (1968) and at the City University of New York (1968). These were empirical studies which gathered data on the types of jobs graduates took, their salary ranges, the kinds of firms hiring them,

how many went on to four-year schools, which schools they went to and whether they were employed in a field related to their training. Questionnaires also asked students if they had acquired at the colleges the necessary skills for their careers and if they had suggestions for improving the curriculum.[4]

Among the difficulties encountered in conducting follow-up surveys of graduates, the foremost is the problem of low response. For example, Suffolk County Community College had a 49% response rate, Hawaii 55%, Bronx 65%, and Los Angeles 49%. Higher response rates included Harrisburg with 78% and Hagerstown with 77%, but even these are quite low. This low rate of response presents an obvious problem as to the reliability of the data. In a survey of Wisconsin vocational graduates, Little (1970) found when only 55% of the initial graduates contacted responded, a shorter form of the questionnaire boosted the response to 82%. Brightman (1972) concluded that telephone interviews do not result in a remarkably higher response rate than mail questionnaires. The data, however, may be more reliable since bias introduced by differences between responders and nonresponders is virtually eliminated. An Orange Coast Junior College System study (1970) reached the conclusion that using question-

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[4] Sample follow-up studies of two-year college graduates already cited include Los Angeles CC (Gold, 1972), Portland CC (1972), Montgomery CC (Bleil, 1972), San Diego CC (Baldwin, 1970), Lake Land CC (Lach, 1971), Maryland CC's (Reese, 1967), Lorain County CC (Greive, 1967), California CC's (Lee and Suslow, 1966), Texas CC's (Ellerbrook, 1969), Chicago CC's (Langley, 1968), San Jose City CC (1968), Sante Fe CC (Bromley, 1973), Bucks County CC (1973), Wilkes CC (Roesler, 1971), Orange Coast JC's (Brightman, 1972), Moraine Valley CC (Willett and Piland, 1973), Harrisburg CC (Snyder, 1972), Hawaii CC (1972). Additional studies include Hagertown Jr. Col. (Greive, 1970 and Connecticut (1967). Summaries of each of these studies appear in the ERIC search.

naires filled out by large numbers of students is not effective and might be replaced by itemsampling techniques used in conjunction with in-depth interviews.

2. The Need for Uniform Models and Guidelines:

Several states involved in developing follow-up studies at their public two-year colleges have found that instruments for gathering data statewide are more effective than relying upon individual surveys for each college. A project was conducted in North Carolina in 1972 to assess the condition of follow-up studies throughout the state and to develop an instrument reflecting the concerns of all of North Carolina's community colleges and providing data both for institutional self-study and for central long-range planning. Similarly, the Orange Coast Junior College District in Costa Mesa, California (1970) developed a standardized data storage and retrieval system for all colleges in the district.

The state of Florida found that while the Florida colleges' own follow-up studies had been valuable to themselves, statewide research was needed to assess the system's success. A 1969 study of community college students showed the need for a standard student information system to supply full and uniform data on each student in the system. This led to the development in June 1974 of Florida's Guidelines for Placement Services, Follow-up Studies, Dropout Studies in Florida Community Colleges, issued by the State Department of Education. The rationale for these guidelines states that the validity and effectiveness of the community college educational programs are reflected in the extent to which students who leave can and do enter into gainful

employment for which they have been prepared and in their performance in further education. Florida sees that placement services should be used to evaluate educational programs as well as to provide immediate services to both students and employers. Finally, they conclude that dropout studies can provide additional clues for program modification. The guidelines set forth procedures for evaluation, responsibility, population to be served and deadlines for reports to state officials.

BIBLIOGRAPHY

A. THE SPECIAL IMPORTANCE OF PLACEMENT SERVICES IN THE TWO-YEAR, CAREER-ORIENTED COLLEGE

Hedlund, Dalva E. Placement Services in New York State Two-Year Colleges. Cornell Institute for Research and Development in Occupational Education, December 1972.

SUNY/Albany. Opening the Way: A Dialogue on the New Student. June 1971. (ERIC document ED058876).

Larsen, Howard B., ed. and Hunder, Jean, ed. Designing a Model for Community College Placement: Proceedings of a Career Placement Workshop. Washington University, Seattle, Washington, February 1971. (ERIC document ED056686).

Blocker, C. E. Student Personnel Service for Occupational Education. American Association of Junior Colleges, Washington, D. C., 1966, pp. 65-77.

Glenn, Mary. Student Placement and Follow-up Services in the Junior College, May 1968. (ERIC document ED022443).

Eastern College Personnel Officers. Career Counseling and Placement in Higher Education: An Annotated Bibliography. 1964.

Brod, Pearl and Brod, Nathan. "Placement Counseling: Focus on the Community College." Journal of Employment Counseling, Vol. II, No. 1, March 1974, pp. 32-36. (ERIC document ED094339).

Mohs, Milton C. Service Through Placement: The Organization and Operation of a Junior College Placement Bureau. American Association of Junior Colleges, Washinton, D.C., 1962. (ERIC document ED014968).

B. STUDIES OF PLACEMENT SERVICES: COMPONENTS AND PROBLEMS

Cross, K. Patricia. The Junior College Student: A Research Description. Educational Testing Service, Princeton, N.J., 1968.

Panos, R. J. and Astin, A. W. "A Profile of Entering 1965 College Freshmen: Some Behavioral and Biographical Characteristics of the Class of 1969." College and University, No. 42, 1967, pp. 160-174.

McCowan, R. J. and Mongerson, M. D. Employment Status and Attitudes of Secondary School Occupational Education Graduates in New York State. Educational Research & Development Complex, State University College at Buffalo, Buffalo, N.Y., 1971.

Scott, Craig S., Fenske, R. H. and Maxey, E. J. Vocational Choice Change Patterns of a National Sample of Community-Junior College Students. American College Testing Program, Iowa City, Iowa, May 1964.

Hedlund, D. E., Bail, J. P., and Nelson, A. G. An Evaluation of Counseling and Related Services in New York State Two-Year Colleges. Department of Education, Cornell University, Ithaca, N.Y., 1968.

Gold, Ben K. The 1968 L.A.C.C. Graduates -- Four Years Later. Los Angeles City College, California, June 1972. (ERIC document ED062984).

Portland Community College. Status of Spring 1971 Graduates. Portland, Oregon, September 1972. (ERIC document ED068091).

Bleil, David F. The Graduates of 1970: A Follow-Up Study of the Students Who Graduated from Montgomery Community College in 1970. Rockville, Maryland, 1972. (ERIC document ED069274).

Baldwin, Evanell K. Differential Attitudes and Practices Relative to Minority Groups as Evidenced by College and Community Experiences. San Diego Community College, California, June 1970. (ERIC document ED043329).

Hills, John R. "Transfer Shock -- The Academic Performance of the Junior College Transfer." The Journal of Experimental Education, Vol. 33, No. 3, Spring 1965. (ERIC document ED019740).

Roueche, John E. "Follow-ups of the Junior College Transfer Student." Junior College Research Review, Vol. 1, No. 1, February 1967. (ERIC document ED013067).

Bronx Community College. Follow-up Studies of Bronx Community College Graduates. City University of New York, January 1969. (ERIC document ED026989).

Lach, Ivan J. A Study of Lake Land College Transfer Students. Lake Land College, Mattoon, Illinois, August 1971. (ERIC document ED054777).

Reese, Harold D. Follow-up Study of Graduates of Eleven Public Community Colleges in Maryland. July 1967. (ERIC document ED016476).

Hewitt, Charles F. Efficiency toward Completing Bachelor Degree at Western Michigan University. Western Michigan University, Kalamazoo, Micigan, 1971. (ERIC document ED058865).

Greive, Donald E. Transfer Study. Lorain County Community College, Elyria, Ohio. October 1967. (ERIC document ED017254).

Lee, Donald C. and Suslow, Sidney. A Differential Study of California Junior College Transfer Students at the University of California, Berkeley. Office of Instructional Research, University of California, Berkeley, August 1966. (ERIC document ED017515).

Ellerbrook, W. L. Placement and Follow-up Programs in the Public Junior Colleges of Texas. January 1969. (ERIC document ED027010).

O'Connor, Thomas J. Follow-up Studies in Junior Colleges: A Tool for Institutional Improvement. American Association of Junior Colleges, Washington, D. C., 1965. (ERIC document ED004810).

Langley, Elizabeth H. Follow-up of the 1963 Freshmen Class of Eight Chicago City Junior Colleges. Loyola University, Chicago, Illinois, June 1968. (ERIC document ED026984).

San Jose City College. Students Who Were Enrolled Fall 1967 and Did Not Return for Spring 1968. San Jose, California, 1968. (ERIC document ED022463).

Bromley, Ann. Two Attrition Studies at Santa Fe Community College. American Educational Research Association, New Orleans, Louisiana, February 1973. (ERIC document ED075022).

Bucks County Community College. Follow-up Study: Non-Academic Attrition at Bucks CCC, 1965-72. Newtown, Pa., August 1973. (ERIC document ED082751).

Terry, Jared Y. The Aims and Needs of College Vocational Education Drop-outs: A Research Report. Louisiana Technical University, Baton Rouge, Louisiana, November 1972. (ERIC document ED075579).

Roesler, Elmo V., ed. Community College and Technical Institute Follow-up Study of Students Enrolled during One or More Quarters, Fall 1970 to Fall 1971. Bureau of Higher Education, Washington, D.C., 1971. (ERIC document ED072770).

Brightman, Richard W. Follow-up Interviews with Former Students, Fall 1971-72 to Spring 1971-72. Orange Coast Junior College District, Costa Mesa, California, July 1972. (ERIC document ED063921).

C. IMPORTANCE OF FOLLOW-UP STUDIES

Krasnegor, Rebecca and Sharp, Laue M. The Use of Follow-up Studies in the Evaluation of Vocational Programs. Bureau of Social Science Research Inc., Washington, D.C., May 1966. (ERIC document ED010072).

Forgey, George W. Some Selected Economic Benefits and Characteristics of Junior College Programs. State of Illinois Advisory Council of Vocational Education, Normal, Illinois, April 1971. (ERIC document ED051803).

Matteson, Richard V. The Relationship of Junior College Programs to the Experiences of Graduates. University of California, Berkeley, 1966. (ERIC document ED024364).

Deem, Thomas E., Jr. Practices and Opinions Related to Follow-up Studies by Public Junior Colleges: An Empirical Study. University of Illinois, 1969. (ERIC document ED038956).

Goff, Maurice L. Survey of Present Methods of Follow-Up of Public Post Secondary School Graduates in Vocational Programs. University of Wyoming, Laramie, Wyoming, January 1968. (ERIC document ED028339).

Little, Kenneth. Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. Ohio State University, Columbus, Ohio, February 1970. (ERIC document ED037543).

Willett, Lynn H. and Piland, William E. Employer Evaluation of Occupational Programs. Moraine Valley Community College, Palos Hills, Illinois, July 1973. (ERIC document ED078819).

Suffolk County Community College. Follow-up Study of Career-Oriented Curriculums. Selden, N.Y., 1968. (ERIC document ED020739).

Snyder, Fred A. The Employment of Career Graduates. Harrisburg Area Community College, Pennsylvania, 1972. (ERIC document ED065117).

Senier, John and Enderlein, Thomas E. A Supply-Demand Model for Vocational-Educational Planners. Department of Vocational Education, The Pennsylvania State University, University Park, Pennsylvania, March 1973.

Hawaii Community College. Hawaii Community College Vocational-Technical Graduate Follow-up Studies, 1968-71. Hawaii University, Honolulu, June 1972. (ERIC document ED066155).

Engineering Manpower Commission. Engineering and Technology Graduates 1973. Engineering Joint Council, New York, N.Y., 1973.

Tuttle, F., Braden, P. and Shearer, J. "OTIS Matches Manpower Supply and Demand," American Vocational Journal, Vol. 46, pp. 54-56, April 1971.

Davison, Mildred. Career Graduates: A Profile of Job Experience and Further Study of Students with AAS Degrees. City University of New York, N.Y., December 1968. (ERIC document ED028295).

Behrendt, Richard L. Graduate Follow-up Study 1948-73. Hagerstown Junior College, Maryland, March 1974. (ERIC document ED088549).

Renzuli, J. S. and Callahan, C. M. Development of a Follow-up Questionnaire for Community College Graduates. Manchester Community College, Connecticut, June 1972. (ERIC document ED077494).

Greive, Donald E. Follow-up of Career Graduates Currently Employed. Cuyahoga Community College, Cleveland, Ohio, April 1970. (ERIC document ED038965).

Connecticut State Department of Education. Graduate Follow-up, 1966. Hartford, Connecticut, 1967. (ERIC document ED016809).

Little, J. Kenneth and Whinfield, Richard W. Follow-up of 1965 Graduates of Wisconsin Schools of Vocational, Technical and Adult Education. University of Wisconsin, Madison, June 1970. (ERIC document ED046113).

Orange Coast Junior College District. Project Follow-Through Report III. Costa Mesa, California, June 1970. (ERIC document ED040701).

Guilford Technical Institute. Development of a Research Instrument Which Can Assess the Occupational and Educational Status of Former Occupational Enrollees of North Carolina Community Colleges and Technical Institutes. Jamestown, North Carolina, June 1972. (ERIC document ED072238).

Florida Community Junior College Inter-Institutional Research Council. Where Are They Now? A Follow-up of First Time in College Freshmen in Florida's Community Junior Colleges in Fall 1966. November 1969. (ERIC document ED035396).

State of Florida Department of Education. Guidelines for Placement Services, Follow-up Studies, Dropout Studies in Florida Community Colleges. Tallahassee, Florida, June 1974.

APPENDIX II

Student Questionnaire

STUDENT PROFILE OF EDUCATION AND EMPLOYMENT

DEAR GRADUATE:

The enclosed questionnaire seeks to evaluate the employment success of students who have been enrolled in career-oriented programs in New York State's two-year colleges. It is part of a study entitled "A Comprehensive, Statewide Follow-up study of Public Two-Year College Occupational Graduates in New York State" which was commissioned by the New York State Education Department and is being conducted by an independent research team at the State University Center at Buffalo.

The information will be used to assist current and future students in making career decisions and to evaluate the placement services within the two-year colleges.

Your reply to this questionnaire, which will be held in strictest confidence, will be most useful in finding out how well these colleges are fulfilling student needs.

Thank you for your participation.

Sincerely yours,

John Bruce Francis

John Bruce Francis, Project Director

INSTRUCTIONS

Please answer each question below. Place the appropriate numbered response in the box where applicable; otherwise fill in the space.

1. AGE _____ years

2. SEX 1. female ☐ 2. male ☐

3. RACE or ETHNIC GROUP (optional) _____

4. MARITAL STATUS: 1. Married ☐ 2. Single ☐ (including divorced, separated or widowed)

5. Highest Degree received from Two-Year college (SELECT ONE)
   1. Certificate or Diploma
   2. Associate of Arts (A.A.)
   3. Associate of Science (A.S.)
   4. Associate in Applied Science (A.A.S.)
   5. Associate in Occupational Studies (A.O.S.)
   6. No degree received
   7. OTHER (specify) _____

   ☐

6. Year degree received _____ (year)

7. From what program, major field, or specialization did you receive your degree? _____

8. How satisfied were you with your choice of field or specialization? (Use scale below)

1	2	3	4
Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied

   ☐

9. What was your final cumulative grade point average at the two-year college? _____
   (If not on a 4-point scale, please indicate the scale _____)

10. In what other specialization(s) were you registered at the two-year college before you made the final choice you identified in Question # 7? _____

11. How influential was *each* of the ~~following in your final~~ choice of program? (Use scale provided)

1	2	3	4
A great deal	A moderate amount	Only slightly	Not at all

a. Status of a career in the field . . . . . ☐
b. Desire for a higher paying job . . . . . ☐
c. First choice was filled . . . . . ☐
d. Desire to learn a skill or trade . . . . . ☐
e. Desire to work in a profession . . . . . ☐
f. Previous experience in field (e.g. summer or part-time job) . . . . . ☐
g. Encouragement by parents . . . . . ☐
h. Encouragement by friends . . . . . ☐
i. Encouragement by High School teacher or counselor . . . . . ☐
j. Encouragement by college teacher or counselor . . . . . ☐
k. Favorable employment opportunities . . . . . ☐
l. Difficulty of other programs . . . . . ☐
m. Transferability to 4-year degree program . . . . . ☐
n. I simply liked the career . . . . . ☐
o. OTHER (specify) _____ ☐

12. Select the number from between the two opposite words or phrases which best describes the courses you took at the 2-year college.

			In major or concentration	*Electives*
Rigid	1 2 3 4	Flexible	☐	☐
Challenging	1 2 3 4	Not challenging	☐	☐
Lead to a job	1 2 3 4	Did not lead to a job	☐	☐
Difficult	1 2 3 4	Easy	☐	☐

13. Where have you continued your education, if at all, after graduating or leaving the 2-year college?

1. At another 2-year college
2. At a public 4-year college or university
3. At a private 4-year college or university
4. At a private vocational-technical school
5. OTHER (specify) _____

☐

If you did not continue your education, SKIP TO QUESTION 18.

CONTINUED EDUCATION

14. What was your major, if any, at the institution in which you continued your education? _____

_____

15. How related was this major to your previous college program?

1	2	3	4
Identical	Somewhat related	Slightly related	Not related

☐

16. Which of the following describes your present educational status?

A. 1. Full time
2. Part time ☐

B. 1. Day student
2. Evening student ☐

C. 1. Freshman
2. Sophomore
3. Junior
4. Senior ☐
5. Post-Baccalaureate
6. OTHER (specify)_____

17. What is the highest degree you have received or hope to receive as a result of your continued education?

1. Certificate
2. Associate's degree
3. Bachelor's degree
4. Master's degree
5. Doctorate ☐
6. None
7. OTHER_____

EMPLOYMENT

18. Please give the job title of your
First full-time job (after the 2-year college)_____
Present job_____

19. How much did your two-year program contribute to: (Use scale below) If your present job is your first job, place your answers in the boxes labeled "present job."

1	2	3	4
A great deal	A moderate amount	Only Slightly	Not at all

	First job	*Present job*
a) Obtaining the job	☐	☐
b) Performing the job	☐	☐
c) Upward mobility in the job	☐	☐
d) Job satisfaction	☐	☐

20. What was (is) your annual salary?

1	2	3	4	5
Under $5000.	$5001.- 7500.	$7501.- 10,000.	$10,001.- 15,000.	Over $15,000.

First job ☐ Present job ☐

21. How much training did you receive at work?

1	2	3	4
A great deal of formal training	Some formal training	Only informal training	No training at all

First job ☐ Present job ☐

22. In relation to the two-year college you attended, how far away was your:

	First job	*Present job*
1. In the same county	☐	☐
2. In a neighboring county	☐	☐
3. In New York State	☐	☐
4. Out of New York State	☐	☐
5. Out of the United States	☐	☐

23. How helpful to you were each of the following in seeking employment? (Use the scale below)

1	2	3	4		
A great deal	A moderate amount	Only slightly	Not at all	*First job*	*Present job*
a) College administrators				☐	☐
b) State employment agency				☐	☐
c) Private employment agency				☐	☐
d) Classified ads				☐	☐
e) Relative or friend				☐	☐
f) Faculty				☐	☐
g) Ad placed in newspaper by me				☐	☐
h) Direct application				☐	☐
i) OTHER (specify)_____				☐	☐

24. If you had the opportunity to do it over again, how likely is it that you would:

1	2	3	4	
Very likely	Somewhat likely	Somewhat unlikely	Very unlikely	
a) Choose the same career program				☐
b) Choose the same two-year college				☐

25. Did you register with your two-year college's placement office?

1. YES ☐ 2. NO ☐

If YES, to what extent did this office assist you in various aspects of your career pursuits? (Use the scale listed below)

1	2	3	4		
A great deal	A moderate amount	Only slightly	Not at all	*First job*	*Present job*
a) Counselling				☐	☐
b) Forwarding credentials				☐	☐
c) On campus interviews				☐	☐
d) Reference materials				☐	☐
e) Listings of available jobs				☐	☐
f) OTHER (specify)_____				☐	☐

THANK YOU FOR YOUR COOPERATION!

Please refold and staple the questionnaire so that the BUSINESS REPLY MAIL label with the return address shows and mail it as soon as possible.

APPENDIX III

Employer Questionnaire

State University of New York at Buffalo

Comprehensive State-Wide Follow-up Study
of Public Two-Year College Occupational
Graduates in New York State
Phase II

DEPARTMENT OF HIGHER EDUCATION

FACULTY OF EDUCATIONAL STUDIES

Dear Sir:

I am part of a research team conducting a State Education Department study of the employment successes of graduates from career-oriented programs in the public two-year colleges in New York State. We are surveying students to find out how well they believe their programs have prepared them for the work world. Our purpose is to help the two-year colleges provide more effective and better targeted career programs.

We wish also to know how well prepared their employers believe them to be, for in the final analysis, the employers' perception of their job preparedness is the best indicator of how successful their career training has been.

Would you take a few minutes to tell us from your experience:

1. How the job performance of two-year college career graduates compares with that of your other employees.

2. Whether career programs adequately train such employees prior to their employment or whether they must be given the same on-the-job training as non-graduates.

3. How a two-year college might better prepare a graduate to work as one of your employees.

4. How a two-year college could better tailor its placement activities to increase its students' chances of finding suitable employment and to better serve your needs.

We will be happy to receive your views in writing. If you prefer a more informal communication, please let us know so that we can arrange a personal or telephone interview at your earliest convenience.

Sincerely,

Research Assistant

548 CHRISTOPHER BALDY HALL, SUNY, BUFFALO, NEW YORK 14260 TEL.(716)636-2511,2512

APPENDIX IV

Table Results of Student Questionnaire

N=2693 (All the following figures represent % unless otherwise indicated.)

		TOTAL	1971	1974
1. AGE: in years	Mean	25.73	27.13	24.62
	Median	24.05	25.14	22.14
	Mode	22.00	25.00	22.00
	Range	18-63	18-63	20-61

		TOTAL	1971	1974
2. SEX: 1. female ___		49.9	49.8	50.1
2. male ___		50.0	50.2	49.8

		TOTAL	1971	1974
3. RACE or ETHNIC GROUP (optional) _____	White or Caucasian	58.2	58.7	57.9
	Black	1.8	2.0	1.7
	Hispanic or Spanish	.2	.1	.4
	American Indian	.0	.1	.0
	Blank	39.7	39.2	40.0

		TOTAL	1971	1974
4. MARITAL STATUS: 1. Married ___		42.4	54.4	32.6
2. Single ___		57.6	45.6	67.4

5. Highest Degree received from Two-year College (Select One)	TOTAL	1971	1974
1. Certificate or Diploma	1.7	1.8	1.6
2. Associate of Arts (A.A.)	19.5	21.3	18.1
3. Associate of Science (A.S.)	14.6	12.9	16.0
4. Associate in Applied Science (A.A.S.)	62.9	62.5	63.2
5. Associate in Occupational Studies (A.O.S.)	.7	.4	.9
6. No degree received	.3	.6	.1
7. OTHER (specify) _____	.3	.5	.1

6. Year degree received _____		#	%
	1971	1200	44.6
	1974	1493	55.4
	TOTAL	2693	100.0

7. From what program, major field, or specialization did you receive your degree?

	TOTAL	1971	1974
1. Agriculture	1.9	1.8	1.9
2. Applied Arts	2.5	2.4	2.6
3. Architecture & Related	.8	.4	1.0
4. Arts - Fine & Performing	.2	.3	.1
5. Biological Sciences	1.2	1.2	1.2
6. Business	20.1	19.6	20.5
7. Engineering	15.8	17.9	14.1
8. Health Science	17.6	18.5	16.9
9. Home Economics	1.8	1.8	1.8
10. Liberal Arts	27.9	28.1	27.6
11. Public Service	10.4	8.1	12.2

8. How satisfied were you with your choice of field or specialization?

	1 Very Satisfied	2 Somewhat Satisfied	3 Somewhat Dissatisfied	4 Very Dissatisfied
TOTAL	51.1	34.8	8.4	5.7
1971	51.3	33.8	9.0	5.8
1974	50.9	35.6	7.8	5.6

9. What was your final cumulative grade point average at the two-year college?

	TOTAL	1971	1974
1.0 - 1.9	.2	.5	.1
2.0 - 2.9	47.7	51.2	41.5
3.0 - 3.9	53.3	47.7	57.6
4.0	.7	.7	.8

10. In what other specialization(s) were you registered at the two-year college before you made the final choice you identified in Question #7?

	Changed Major Once (Total N=451)			Changed Major Twice (Total N=17)		
PREVIOUS MAJOR	TOTAL	1971	1974	TOTAL	1971	1974
Agriculture	.7	.6	.8	--	--	--
Applied Arts	1.4	1.2	1.5	--	--	--
Architecture & Related	.7	--	1.1	--	--	--
Arts - Fine & Performing	--	--	--	--	--	--
Biological Sciences	3.0	3.0	3.0	6.7	--	11.1
Business	24.3	26.5	22.9	33.3	16.7	44.4
Engineering	15.5	14.5	16.2	6.7	--	11.1
Health Science	5.6	2.4	7.5	6.7	--	11.1
Home Economics	.7	--	1.1	--	--	--
Liberal Arts	42.1	47.6	38.7	40.0	66.7	22.2
Public Service	6.0	4.2	7.1	6.7	16.7	--

N=2693 or Total Respondents Adjusted Frequency %

11. How influential was each of the following in your final choice of program? (Use scale provided)

	1 A great deal	2 A moderate amount	3 Only Slightly	4 Not at all
1. Status of a career in the field	22.4	32.7	20.7	24.2
2. Desire for a higher paying job	32.7	34.5	16.3	16.5
3. First choice was filled	6.5	4.2	4.2	85.0
4. Desire to learn a skill or trade	39.0	21.8	11.8	27.4
5. Desire to work in a profession	60.4	23.9	7.1	8.5
6. Previous experience in field (e.g. summer or part-time job)	19.8	14.0	13.1	53.0
7. Encouragement by parents	12.4	23.1	23.1	41.4
8. Encouragement by friends	6.2	14.9	25.8	53.1
9. Encouragement by High School teacher or counselor	8.0	13.2	16.0	62.7
10. Encouragement by college teacher or counselor	7.2	13.1	15.4	64.3
11. Favorable employment opportunities	28.0	31.7	18.9	21.4
12. Difficulty of other programs	2.5	5.7	11.8	80.0
13. Transferability to 4-year degree program	32.0	23.6	15.1	29.3
14. I simply liked the career	60.7	24.6	6.6	8.1

11. How influential was each of the following in your final choice of program? (Use scale provided (Combined 1. A great deal and 2. A moderate amount)

	(N=1200) 1971	(N=1493) 1974
1. Status of a career in the field	53.9	56.1
2. Desire for a higher paying job	67.3	67.1
3. First choice was filled	10.4	11.0
4. Desire to learn a skill or trade	61.3	60.4
5. Desire to work in a profession	83.8	84.7
6. Previous experience in field (e.g. summer or part-time job)	35.1	32.8
7. Encouragement by parents	38.4	33.2
8. Encouragement by friends	22.7	19.8
9. Encouragement by High School teacher or counselor	23.7	19.3
10. Encouragement by college teacher or counselor	22.0	19.0
11. Favorable employment opportunities	62.0	58.0
12. Difficulty of other programs	9.0	7.7
13. Transferability to 4-year degree program	57.3	54.2
14. I simply liked the career	83.9	86.4

12. In Major or Concentration

Select the number from between the two opposite words or phrases which best describes the courses you took at the two-year college.

TOTAL

	1	2	3	4	
Rigid	32.9	39.6	20.8	6.7	Flexible
Challenging	40.8	41.6	13.5	4.1	Not Challenging
Lead to a Job	41.4	18.5	11.9	28.2	Did not lead to a Job
Difficult	17.4	53.3	22.5	6.7	Easy

1971

	1	2	3	4	
Rigid	35.3	40.5	18.6	5.6	Flexible
Challenging	40.7	42.4	12.8	4.0	Not Challenging
Lead to a Job	44.6	18.4	11.7	25.3	Did not lead to a Job
Difficult	18.4	53.0	21.5	7.2	Easy

1974

	1	2	3	4	
Rigid	31.1	38.9	22.4	7.6	Flexible
Challenging	40.9	40.9	14.1	4.1	Not Challenging
Lead to a Job	38.8	18.5	12.1	30.6	Did not lead to a Job
Difficult	16.7	53.6	23.3	6.4	Easy

12. Electives

Select the number from between the two opposite words or phrases which best describes the courses you took at the two-year college.

TOTAL

	1	2	3	4	
Rigid	10.1	26.1	38.9	24.9	Flexible
Challenging	12.8	39.6	36.2	11.2	Not Challenging
Lead to a Job	7.3	9.7	20.1	62.8	Did not lead to a Job
Difficult	4.3	39.0	43.3	13.3	Easy

1971

	1	2	3	4	
Rigid	9.9	27.0	38.0	25.0	Flexible
Challenging	14.3	40.0	34.2	11.6	Not Challenging
Lead to a Job	7.7	10.3	21.4	60.7	Did not lead to a Job
Difficult	4.8	40.1	40.9	14.2	Easy

1974

	1	2	3	4	
Rigid	10.2	25.4	39.6	24.8	Flexible
Challenging	11.7	39.4	37.9	11.0	Not Challenging
Lead to a Job	7.0	9.3	19.0	64.6	Did not lead to a Job
Difficult	4.0	38.0	45.2	12.8	Easy

13. Where have you continued your education, if at all, after graduating or leaving the two-year college?

	TOTAL	1971	1974
1. At another 2-year college	3.8	4.1	3.5
2. At a public 4-year college or university	53.3	54.3	52.5
3. At a private 4-year college or university	29.0	28.6	29.3
4. At a private vocational-technical school	2.3	1.9	2.7
5. Other (specify)	11.5	11.0	12.0

14. Continued Education

What was your major, if any, at the institution in which you continued your education?

The major fields in which the students continued their education were coded and keypunched using SUNY's 3-digit identifications as in question #7 but they have not yet been categorized within the 11 areas used in this study.

15. How related was this major to your previous college program?

	1 Identical	2 Somewhat Related	3 Slightly Related	4 Not Related
TOTAL	30.2	45.2	13.8	10.8
1971	26.2	47.9	14.8	11.0
1974	33.4	42.9	12.9	10.6

16. Which of the following describes your present educational status?

		TOTAL	1971	1974
A.	1. Full-time	47.3	20.5	60.9
	2. Part-time	52.2	78.6	38.8
B.	1. Day Student	49.6	25.7	61.6
	2. Evening Student	50.1	74.0	38.1
C.	1. Freshman	1.8	1.4	2.0
	2. Sophomore	2.8	2.3	3.1
	3. Junior	18.6	15.8	20.6
	4. Senior	31.9	14.1	44.4
	5. Post-Baccalaureate	28.9	41.1	20.3
	6. Other	16.0	25.3	9.5

17. What is the highest degree you have received or hope to receive as a result of your continued education?

	TOTAL	1971	1974
1. Certificate	1.3	1.5	1.0
2. Associate's degree	4.4	4.8	4.1
3. Bachelor's degree	50.5	46.4	53.9
4. Master's degree	31.2	33.3	29.3
5. Doctorate	5.7	5.2	6.0
6. None	3.7	5.8	2.0
7. Other	3.3	2.9	3.7

18. EMPLOYMENT: Please give the job title of your Present Job:

	TOTAL	1971	1974
Prof. Tech. Managerial	53.9	59.0	48.9
Clerical & Sales	24.0	22.5	25.9
Service	11.3	8.3	14.3
Farm-Fish-Forestry	1.0	.6	1.4
Processing	.4	.5	.2
Machine Trades	1.8	1.6	2.0
Bench Work	2.5	2.2	2.6
Structural	2.3	2.9	1.6
Miscellaneous	2.8	2.4	3.1

EMPLOYMENT: Please give the job title of your First Full-Time Job after two-year college:

	TOTAL	1971	1974
Prof. Tech. Managerial	49.5	51.1	47.9
Clerical & Sales	26.0	26.1	25.9
Service	12.2	10.6	13.7
Farm-Fish-Forestry	.9	.9	1.0
Processing	.6	.8	.5
Machine Trades	2.6	2.4	2.8
Bench Work	3.0	3.1	2.9
Structural	2.6	3.0	2.2
Miscellaneous	2.6	2.1	3.1

19. How much did your two-year program contribute to: FIRST JOB

	1 A great deal	2 A moderate amount	3 Only Slightly	4 Not at all
TOTAL				
A) Obtaining the job	38.1	16.8	12.5	32.7
B) Performing the job	29.1	27.4	18.8	24.8
C) Upward mobility in the job ...	18.1	21.2	20.1	40.6
D) Job satisfaction	23.0	26.4	17.7	32.9
1971				
A) Obtaining the job	38.5	18.9	14.4	28.2
B) Performing the job	28.3	28.7	20.0	23.0
C) Upward mobility in the job ...	17.7	21.5	22.4	38.4
D) Job satisfaction	22.3	26.4	20.2	31.0
1974				
A) Obtaining the job	37.7	14.8	10.8	36.7
B) Performing the job	29.8	26.3	17.6	26.4
C) Upward mobility in the job ...	18.5	20.9	17.9	42.6
D) Job satisfaction	23.6	26.4	15.3	34.7

19. How much did your two-year program contribute to: PRESENT JOB

TOTAL	1 A great deal	2 A moderate amount	3 Only Slightly	4 Not at all
A) Obtaining the job	37.8	18.4	13.2	30.7
B) Performing the job	29.4	29.1	19.4	22.1
C) Upward mobility in the job ...	20.5	23.0	20.2	36.2
D) Job satisfaction	25.3	27.8	17.7	29.2
1971				
A) Obtaining the job	37.8	20.2	14.5	27.6
B) Performing the job	28.6	30.0	20.5	20.9
C) Upward mobility in the job ...	19.7	23.3	21.7	35.3
D) Job satisfaction	23.7	28.4	19.6	28.3
1974				
A) Obtaining the job	37.8	16.7	12.0	33.5
B) Performing the job	30.0	28.4	18.3	23.3
C) Upward mobility in the job ...	21.3	22.8	18.8	37.1
D) Job satisfaction	26.8	27.2	15.9	30.1

20. What was (is) your annual salary?

FIRST JOB -

	1 Under $5000	2 $5001 - $7500	3 $ 7501 - $10,000	4 $10,001 - $15,000	5 Over $15,000
TOTAL	17.0	27.3	27.1	22.3	6.3
1971	14.1	24.9	28.9	24.9	7.1
1974	19.8	29.6	25.3	19.8	5.5

PRESENT JOB -

	1 Under $5000	2 $5001 - $7500	3 $ 7501 - $10,000	4 $10,001 - $15,000	5 Over $15,000
TOTAL	11.5	18.1	26.5	33.2	10.5
1971	7.3	12.6	25.5	39.9	14.6
1974	15.7	23.5	27.5	26.9	6.5

21. How much training did you receive at work?

FIRST JOB -	1 A great deal of formal training	2 Some formal training	3 Only informal training	4 No training at all
TOTAL	17.0	26.1	41.9	15.0
1971	17.0	26.5	41.9	14.7
1974	17.0	25.8	41.9	15.3

PRESENT JOB -	1 A great deal of formal training	2 Some formal training	3 Only informal training	4 No training at all
TOTAL	19.1	27.3	38.0	15.6
1971	19.7	27.4	36.5	16.4
1974	18.6	27.2	39.5	14.7

22. In relation to the two-year college you attended, how far away was your: FIRST JOB

	TOTAL	1971	1974
1. In the same county	57.0	53.4	60.4
2. In a neighboring county	22.6	23.9	21.3
3. In New York State	13.0	13.8	12.3
4. Out of New York State	7.0	8.3	5.7
5. Out of the United States ...	.4	.5	.3

In relation to the two-year college you attended, how far away was your: PRESENT JOB

	TOTAL	1971	1974
1. In the same county	54.0	49.7	58.1
2. In a neighboring county	22.6	23.9	21.2
3. In New York State	14.2	15.0	13.4
4. Out of New York State	8.8	10.7	6.9
5. Out of the United States ...	.5	.7	.3

23. FIRST JOB

How helpful to you were each of the following in seeking employment?

	1 A great deal	2 A moderate amount	3 Only Slightly	4 Not at all
TOTAL				
a) College administrators.....	5.6	6.0	7.0	81.4
b) State employment agency.....	3.4	1.7	2.5	92.4
c) Private employment agency.....	5.3	1.8	2.4	90.5
d) Classified ads.....	11.0	5.3	5.6	78.1
e) Relative or friend.....	24.9	10.3	7.3	57.5
f) Faculty.....	7.8	6.9	6.3	79.0
g) Ad placed in newspaper by me...	.7	.1	.3	98.9
h) Direct application.....	51.8	9.7	4.0	34.5
1971				
a) College administrators.....	5.0	4.6	6.8	83.6
b) State employment agency.....	3.2	1.5	2.0	93.3
c) Private employment.....	5.3	1.6	2.3	90.8
d) Classified ads.....	11.0	4.4	4.7	79.8
e) Relative or friend.....	24.2	11.0	7.3	57.6
f) Faculty.....	8.0	6.1	4.9	81.0
g) Ad placed in newspaper by me...	.8	.2	.2	98.7
h) Direct application.....	54.6	9.0	3.6	32.9
1974				
a) College administrators.....	6.0	7.4	7.3	79.3
b) State employment agency.....	3.5	1.9	3.0	91.5
c) Private employment.....	5.4	1.9	2.5	90.2
d) Classified ads.....	10.9	6.2	6.4	76.5
e) Relative or friend.....	25.6	9.6	7.3	57.5
f) Faculty.....	7.6	7.7	7.7	77.1
g) Ad placed in newspaper by me...	.6	0.0	.4	99.0
h) Direct application.....	49.1	10.4	4.5	36.0

23. PRESENT JOB

How helpful to you were each of the following in seeking employment?

	1 A great deal	2 A moderate amount	3 Only Slightly	4 Not at all
TOTAL				
a) College administrators.....	4.0	4.8	6.6	84.6
b) State employment agency.....	3.6	1.6	2.2	92.7
c) Private employment agency.....	5.9	1.0	2.0	91.1
d) Classified ads.....	10.9	5.0	4.6	79.5
e) Relative or friend.....	27.3	10.2	6.8	55.8
f) Faculty.....	6.9	5.6	5.5	82.0
g) Ad placed in newspaper by me...	.4	.2	.4	99.0
h) Direct application.....	53.7	8.0	3.2	35.0
1971				
a) College administrators.....	2.3	2.9	6.3	88.4
b) State employment agency.....	3.4	1.4	2.1	93.2
c) Private employment agency.....	5.6	.7	2.1	91.6
d) Classified ads.....	10.2	4.8	4.0	81.0
e) Relative or friend.....	27.6	10.8	6.4	55.2
f) Faculty.....	6.2	4.3	4.2	85.3
g) Ad placed in newspaper by me...	.5	.2	.5	98.7
h) Direct application.....	56.4	7.8	2.1	33.6
1974				
a) College administrators.....	5.6	6.4	7.0	81.0
b) State employment agency.....	3.8	1.7	2.2	92.4
c) Private employment agency.....	6.1	1.3	1.9	90.6
d) Classified ads.....	11.5	5.1	5.2	78.1
e) Relative or friend.....	27.0	9.6	7.1	56.3
f) Faculty.....	7.6	6.9	6.7	78.8
g) Ad placed in newspaper by me...	.3	.1	.3	99.3
h) Direct application.....	51.0	8.2	4.4	36.4

24. If you had the opportunity to do it over again, how likely is it that you would?

	1 Very likely	2 Somewhat likely	3 Somewhat unlikely	4 Very unlikely
TOTAL				
a) Choose the same career program	49.6	21.9	12.3	16.2
b) Choose the same two-year college	60.8	22.4	7.7	9.1
1971				
a) Choose the same career program	48.5	21.6	11.8	18.0
b) Choose the same two-year college	60.7	23.7	7.4	8.2
1974				
a) Choose the same career program	50.5	22.1	12.7	14.8
b) Choose the same two-year college	60.9	21.4	7.9	9.8

25. Did you register with your two-year college's placement office?

	YES	NO
TOTAL	28.6	71.2
1971	23.5	76.4
1974	32.7	67.3

If yes, to what extent did this office assist you in various aspects of your career pursuits?

FIRST JOB	1	2	3	4
	A great deal	A moderate amount	Only slightly	Not at all
TOTAL				
a) Counseling.....	6.5	12.6	16.5	64.5
b) Forwarding credentials.....	15.5	16.5	12.0	55.9
c) On campus interviews.....	11.2	10.1	11.2	67.4
d) Reference materials.....	8.6	16.5	15.7	59.2
e) Listings of available jobs...	21.4	21.6	16.4	40.5
1971				
a) Counseling.....	8.3	11.6	18.2	62.0
b) Forwarding credentials.....	19.1	22.5	11.4	47.0
c) On campus interviews.....	10.2	8.5	11.1	70.2
d) Reference materials.....	6.8	14.5	17.1	61.5
e) Listings of available jobs...	14.6	19.7	17.2	48.5
1974				
a) Counseling.....	5.3	13.3	15.4	66.0
b) Forwarding credentials.....	13.2	12.7	12.4	61.6
c) On campus interviews.....	11.9	11.1	11.4	65.7
d) Reference materials.....	9.7	17.8	14.8	57.7
e) Listings of available jobs...	25.7	22.8	16.0	35.5

25. If YES, to what extent did this office assist you in various aspects of your career pursuits?

PRESENT JOB

	1 A great deal	2 A moderate amount	3 Only slightly	4 Not at all
TOTAL				
a) Counseling.....	3.6	9.1	12.1	75.1
b) Forwarding credentials.....	13.6	15.4	10.1	60.9
c) On campus interviews.....	8.8	7.2	8.1	75.9
d) Reference materials.....	7.8	13.0	12.5	66.8
e) Listings of available jobs...	17.3	15.1	10.5	57.0
1971				
a) Counseling.....	3.8	8.1	11.1	76.9
b) Forwarding credentials.....	15.6	18.6	10.8	55.0
c) On campus interviews.....	5.2	6.0	6.9	81.9
d) Reference materials.....	6.6	10.9	12.7	69.9
e) Listings of available jobs...	10.0	12.2	10.9	67.0
1974				
a) Counseling.....	3.5	9.8	12.7	74.0
b) Forwarding credentials.....	12.3	13.4	9.6	64.7
c) On campus interviews.....	11.0	8.0	8.8	72.1
d) Reference materials.....	8.5	14.3	12.4	64.8
e) Listings of available jobs...	22.0	17.0	10.3	50.7

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